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THE ECONOMIC JOURNAL

MARCH, 1931

THE SECOND INDUSTRIAL REVOLUTION

THE thesis of this article is that the advanced industrial countries of the world are now in the first stage of a sweeping change of the methods and organisation of all their secondary industries, and that this new movement is likely to be comparable in its industrial, commercial and social effects with that series of changes which commenced in the latter half of the eighteenth century and is commonly called the Industrial Revolution. The changes are coming about as the result not merely of the application of scientific knowledge to industry, which was, in fact, the last phase of the first industrial revolution, but of the use of the inductive method in the study of an industry, and individual concerns composing it, with a view to gaining facts and generalisations which may serve sooner or later as the basis of the replanning of the productive process and plant. The essence of the new industrial revolution is the search for exact knowledge, and the planning of processes: from the minutiæ of manual operations (based on motion-study) to the lay-out of the machinery of a gigantic plant—even of a whole industry throughout the country. The trade and social results are to some extent different according to whether the industry is replanned and rebuilt under conditions of free competition or of monopoly; and in the latter case according to whether the monopoly is in private or public ownership—and absolute or partial. The effects upon wealth production and its distribution vary considerably according to the nature of these conditions; but it is arguable that one ultimate effect will be a stimulus to public ownership and operation of industries.

The Beginning

The movement appears to have had its origin in the union of three distinct trains of ideas, which evolved with their corresponding actions. Accountancy ceased to be a mere record of

past events and developed in the latter half of last century into an applied science designed to aid the business man in the policy of his operations (*e.g.* by determining the relative profitableness of different sections of a business, rates of amortisation, etc.) coincidently with the rise of the profession of chartered accountants. This led to the invention of cost accounts for factories so far back as the 'eighties.

The second train of ideas originated amongst engineers, who applied the results of pure science in the effort to attain safety and economy in the construction of bridges and other works, and ships and boilers. Methods of rule of thumb, or trial and error, were replaced by exact calculations and measurements. These methods were of paramount importance in electrical engineering and gradually spread through mechanical engineering work also during the past forty years.

Thirdly, there was ever-increasing competition amongst manufacturers and an ever-widening market. The great decline of prices from 1873–94 (in the United States from 1865–96) kept them busy devising ways of reducing costs; and mass production, which was devised in America and introduced into England in the 'sixties,[1] became a highly successful device in the new conditions created by falling prices. Many kinds of things were made in lots of hundreds or thousands at a time all alike, and with interchangeable parts, whereas the previous practice had been to make them in tens or hundreds. In certain industries mass production developed into continuous production, as in making sewing-cotton, paper, biscuits, watches, etc. Strictly speaking mass production merely means making a large number of articles exactly alike at one time for which special tools or adjustments of machines are employed; but in common speech it has come now to be synonymous with continuous production, which, of course, might be called "continuous mass production."

The application of scientific ideas to the tasks of the mechanical workshop combined with cost accounting was responsible for the birth of scientific management. The date 1911, when Taylor published his famous *Principles of Scientific Management*, inaugurates a definite acceleration of the second industrial revolution. True, several firms in the United States were already familiar with his ideas and were using his methods, and Gilbreth was already applying the results of motion study; but from 1911 on the ideas became common property, and "live" engineers and enter-

[1] "American Engineering Competition, 1850–70," by D. L. Burn; in *Economic History Supplement* to ECONOMIC JOURNAL, Vol. II, No. 6 (1931), pp. 297-300.

prising owners of engineering works learnt how to apply them. Success was but partial, however, owing to difficulties with labour, mainly from the neglect of one of Taylor's major principles.

Then came the war and its enormous demand for standardised munitions. Everywhere plants were reorganised on the basis of continuous production with Government-controlled cost accounts. Besides the Taylor ideas, welfare work and industrial fatigue research received a great impetus and general acceptance in engineering and other industries. Co-ordination of production in a number of different plants was secured by a Committee under the Ministry of Munitions. Striking progress was made with the introduction of automatic lathes and machine tools, several being in the charge of one worker.

The tendency to price rings, cartels and amalgamations in England was becoming marked before the war; but in Germany the movement had advanced further. In both countries war needs and measures tended to promote co-operation between producers in the same industry; and the habits of thought so generated persisted and have led to price agreements and amalgamations being a common feature of British industry, as of other European countries.

Rationalisation

In the after-war reconstruction the importance of the new American methods—continuous production, specialisation, the replanning of plants, adoption of Taylor's principles and methods, personnel management and industrial psychology—was more widely recognised by German industrialists than by English. A great movement of reorganisation of industry on the new bases of efficiency commenced, and a few years later came to be known as "rationalisation." This term is appropriate because the transformation of industry which it denotes is based on reason throughout, being a replanning of equipment and labour methods on the basis of observations and estimates having a scientific basis. There appear to be five features essential to the rationalisation of an industry :—

(1) Amalgamation or unified control of companies and elimination of weak concerns, so as to secure control of the market, and thus facilitate on the basis of monopoly profits the raising of the large amount of new capital necessary;

(2) Specialisation of plants and their re-equipment so as to reap the maximum economies of large-scale production,

both in respect of machinery and of organisation; and the building of large new plants for products in the manufacture of which the utmost economy can be reached only in this way;

(3) The planning of each plant for continuous production with specialised machines and tools;

(4) Specialised management, largely functional, including careful buying, grading and mixing of raw materials;

(5) Perfection of manual operations on the basis of time and motion studies, with necessary instruction.

All these are ways of reducing either prime or supplementary costs: their relative importance varies according to the product and prevailing conditions.

It is a matter for regret that the term rationalisation should have come widely into use in this country, though its implications are but little understood. Even economists must be blamed for having sometimes used the term with looseness or ambiguity. Particularly objectionable is the phrase "financial rationalisation," meaning no more than financial reconstruction: writing down book assets, carrying through amalgamations and raising new capital, without necessarily involving the physical improvement of plants.

Specialisation

Rationalisation implies control over practically the whole of the industry in the country, whether that be gained by the commercial method of the large and enterprising capitalist dominating and buying up the smaller, by voluntary combination, or by State intervention. Specialisation, although an essential measure for real success in rationalisation, is also increasingly adopted in industries open to free competition on account of the great opportunities of profit which it provides when followed with boldness and circumspection. Amongst the dozens of examples, mainly American, the one outstanding is the business of Henry Ford. He diagnosed correctly an almost universal want, and with the utmost boldness set out to supply it by continuous production in a specially built plant.

Specialisation is from the theoretical point of view merely the best way of carrying the realisation of the economies of large-scale production to its logical conclusion. Doing so, however, involves a good deal more than is generally realised. The manufacturer, or producer of any kind, makes up his mind to produce

one kind of article only, instead of a range of various articles usually considered as belonging to the same trade. Take, for instance, the old-fashioned trade of a locksmith; he was accustomed to make locks of all sizes and kinds, both padlocks and locks for doors, cabinets, drawers, etc., both in brass and iron. There are still many such manufacturers of locks in England who produce a complete range of styles and sizes. Looking through a Commercial Directory one finds any number of examples in the iron and steel, machinery and hardware trades where manufacturers have a varied output, some of the products being quite unrelated to one another in production.

A manufacturer who decided on a policy of specialisation would decide to make padlocks only, or door-locks only, or window fastenings only, and so forth. He would lay down a special plant for making these by automatic casting machines; or by stamping and pressing machines where sheet steel or brass could be used as the raw material. The hollow-ware manufacturer, if he specialised, would decide to make nothing but galvanised iron buckets, or nothing but kettles or saucepans. The whole of his plant would be constructed according to a plan designed especially to produce buckets and nothing else, with automatic machines, and the material carefully routed.

Specialisation with continuous production has already been introduced in a number of British industries, so that the principles are thoroughly understood by machinery manufacturers. One of the best examples which occurs to one is the modern match factory. The material, from the moment the logs are placed in the veneer-cutting machines until the final packing in 50-gross cases, is never touched by hand, but goes through a continuous series of automatic machines, drying ovens and packing machines which have merely to be regulated, and adjusted and supplied with material. Extraordinary economies can be attained by specialisation. During the nineteenth century the use of machinery and power in the ordinary engineering workshop or hardware factory of this country effected considerable saving as compared with methods involving a considerable amount of hand work; but the further reduction of costs which can be obtained by the use of machines specially designed for the successive operations in making each part of the completed article is so great as to constitute a new or second order of economies in the use of machines and power. In a large factory producing continuously there may be as many as two thousand machines, most of them different and each specially designed for its own work.

Concentration of Attention

The very striking reduction of costs which can be obtained through specialisation appears to arise largely from the *concentration of attention* by the proprietor or general manager of the business and the technical specialists he employs upon the problems of reducing costs. When such concentration of intellectual effort and experiment takes place with the aid of experts who have at their command all the resources and accumulated technical experience of this and other countries, totally new ways of producing articles can be discovered; or the old methods can be altered almost out of recognition by pre-treatment of materials, by redesigning the article, or by multiplication or simplification of the machines or other plant employed.

The concentration of attention is needed: (1) before production is commenced; (2) when the plant is running. The work which spells success or failure is, however, done before production starts. The organiser (or organising proprietor) must first decide his general policy. Should he concentrate on one article by specialisation, or should he concentrate on variety? In the first case he looks for profit by making a single article which is in wide demand in a standard pattern for the lowest possible cost, always working before and after construction of the plant to get cost per unit to the lowest possible figure. In the second case he looks for profit by the number, originality, convenience and attractiveness of his designs of the article in question. A bright idea in design may put up the price he can charge for his article by 50 per cent; and this is more important than any economy he would be likely to get with a similar amount of intellectual effort devoted to reducing costs of production, considering the limited market there is for such novelties. In a great number of trades producing articles of clothing and adornment, furnishing and decoration of houses and other equipment, no less than in confectionery and stationery, there is indefinite scope for novelties in design, whether these have to conform with fashion or not. On the other hand, in articles of utility universally used in the kitchen, workshop and so forth, the scope for profit lies in standardisation and concentration on reduction of costs by specialisation. The policy of concentrating on variety and novelty of design, though profitable up to a point, is rarely the means of accumulating a large fortune, and is of small social consequence in comparison with the second policy: that is to say, cost reduction by specialisation on an article in wide demand. We need not be concerned further with the former.

Procedure in Organising Specialisation

Specialisation necessarily involves large capital outlay, for two reasons. In the first place, the cost of production can be lowered only by continuous production with the operations greatly subdivided; and to justify such a plant an output is likely to be needed from five to thirty times as great as that of any existing plant manufacturing the article in the country. In the second place, full advantage will not be taken of the new method of production unless semi-automatic machine tools, conveyors, etc. be introduced which are economical in labour cost but costly in capital outlay. Undoubtedly it is the enormous cost of the plant which would be needed which hinders the adoption of specialisation in the old-standing industries of this country. Nearly the whole of the existing plant would be useless for the purpose in many industries.

There are two ways in which specialisation has been initiated in America, Great Britain and other countries. In certain cases a firm has decided that it has sufficient capital resources, or power of raising capital, to enable it to specialise on one or other of the products which it is already producing and marketing. It is prepared to risk a considerable loss in view of the large profits which appear likely to mature from a successful operation of the proposed new plant. The firm relies upon the success of its carefully laid plans to be able to oust its competitors from the market by substantially reducing the price. The outstanding example of specialisation in a competitive market is the Ford car, but many examples could be quoted in the manufacture of watches, locks and tools.

In an old-established industry where competition is severe it is probable that no firm will care to risk the capital outlay necessary for specialisation. It is likely to be introduced only by the amalgamation of a number of firms controlling more than 50 per cent of the output in the trade. The *modus operandi* is as follows. Let there be, for instance, twelve firms each making five or six of the products which we may call *a*, *b*. *c*. to *h*, being kinds of goods which are related in the sense of finding common marketing facilities, or perhaps in needing the same raw materials or manufacturing plant. The twelve firms become united into one; and this large new company establishes eight new plants, each one devoted only to the manufacture of one of the products *a* to *h*. The new company formed by the amalgamation will retain the trade connections and goodwill of all the twelve firms, and may to

some extent find it desirable to carry on business under their names or brands; but any particular product *a* will now be of exactly the same pattern whether marketed under one name or another; except, it may be, in some minor feature for which the machines can be altered at little cost. Combinations of firms which stop short of amalgamation rarely achieve true specialisation.

The problem of introducing specialisation is easier and the risk much less in a new industry than in an old-established industry. By new industry is meant one which satisfies a newly-developed want by means of a new invention: as in former days the bicycle or incandescent electric lamp, and more recently the motor-car, aeroplane and wireless receiving sets. In a new industry it may be possible to gain temporary monopoly by means of patent rights. Even if there is no patent on any part of the article or any of the machines specially designed for manufacturing it, the profits are likely to be large if the cost of production is greatly reduced by a large output, on account of the fact that, being an article which satisfies a newly-developed want, the demand for it will be growing. The manufacturer has the advantage that the demand curve moves away to the right at the same time that quantity demanded on the new curve is increased by the lowering of the price. Moreover, in a new industry it is unlikely that there will be a large number of existing firms. Consequently specialisation may be introduced before the margin of profit has been reduced to that which barely suffices to attract more capital. In such an industry specialisation, if energetically pursued, is safe and very profitable.

In an old industry, on the other hand, the manufacturer is bound to take a plunge, so to speak. There may be other manufacturers planning to do exactly as he is planning. A sudden influx into the market of a competitive article similar to his, also made by specialisation, might spell ruin. Perhaps he is able to find out what other firms in his own country are doing; but he cannot foresee similar competition from abroad, which would be equally damaging in the absence of a protective duty.

There are certain definite inquiries and preparations which a manufacturer considering whether he will specialise on some article and produce it in quantity by continuous production must make. He has first to investigate the market for the article (1) at home, (2) abroad; and must consider, on whatever evidence he can collect, the elasticity of demand. That refers to the total quantity of the article demanded at each price, being the product

of all firms in the industry together. He has further to consider how far his particular article in its new form will be an effective substitute for the particular styles or brands now on the market, and also how far his competitors are likely to be able to lower their prices to meet his competition. There are experts in market research who can undertake such investigations; but he should satisfy himself as to their evidence and reasoning.

I have mentioned that he has to consider the demand for the article "in its new form." In specialising and using automatic machinery the lowest cost of production will be found by adapting the materials used and the method of moulding them to the most convenient machines—that is, those which are most economical in operation. Thus pressing and drawing of sheet or bar metal is substituted for casting; and grinding is substituted for turning and planing. On the other hand, since the article to be manufactured is to be produced in great quantities by a costly plant, it must be standardised, so that the design need not be changed (except perhaps in details) for many years. It is desirable, therefore, before adopting a design to consider most carefully in what respects it might be improved in serviceability, durability and appearance. The utmost of utility to the consumer must be offered at the lowest cost; and these requirements act and react on the design until it is finally settled. It is the business of the production engineer—a young and important profession—to aid in the designing of the article for mass production with these considerations before him; then to design the machines, jigs, tools or dies to produce it, and the layout of the whole plant. Throughout the whole process of arriving at the best design of the article, and the machines for producing it, cost of material and of operation has to be investigated; for the decision is ultimately one of utility to the public *versus* cost, with the qualification that the utility of marginal improvements in design must be separately balanced against their cost. Here again the income class to be supplied has to be considered; and the opinion is usually formed that it is the mass of the people with low and moderate incomes for whom it pays to cater by specialisation.

The design of the article and the character of the plant being settled, steps must be taken towards the erection of the factory. The location needs carefully investigating; and although the firm may have an existing factory, it does not follow that the most economical policy is to extend it or to build another factory beside it. A wholly new locality may be best.

It must not be supposed that the search for economies in

production is ended when the plant and management have been planned and set in operation. A continuous record of results is maintained, with experimental costings of details which it is not worth while continually to record; and this provides information as to the results of trials of changes in methods of operation. An alert management will always be making slight changes in materials, processes or machines and measuring the results with a view to reduction of cost, or to improving the quality of the product, and thus raising its selling price. Such improvements take place not only in the technical (*e.g.* chemical and mechanical) aspects of the production, but also in the methods of the workers, whose movements in relation to material and machines are perfected by the methods of motion study applied by industrial psychologists and other specialists.

Many firms maintain laboratories for testing materials and products; and often they have also a research laboratory. We have here to distinguish between research for three classes of problems: (1) in pure science, such as usually carried on at universities, and science institutes; (2) fundamental research for an industry, such as that carried on by the Shirley Institute, Manchester, for the cotton trade, or in Sheffield University for metallurgy; (3) purely trade research carried on by the firm itself in its own laboratory, in which its own plant, materials and processes are subjected to examination by experts in the light of the results of scientific and fundamental research. The problems of each firm specialising in a particular article are different; and if it has no adequately staffed laboratory it cannot make use of the published results and information placed at the disposal of the industry by a public research institute or department.

The procedure of specialisation by an individual firm has been described in some detail here because it appears to me to be highly important that the principles involved therein should be common knowledge amongst economists and business men. When specialisation follows an amalgamation of existing firms the procedure to be adopted is practically the same as above in regard to each of the articles which they decide to put into continuous production. The difference lies in the possibility of certain other economies accruing from such opportunities as, (1) the employment of whole-time experts; (2) exploiting possibilities of correlating the processes for producing two or more articles, which might involve savings in materials, power and the utilisation of waste products.

In this country the English contempt of logic and love of

compromise is a real danger in the present situation of our old-established industries. A company formed by amalgamation which intends to adopt specialisation with mass production must do so thoroughly. Old plants should be scrapped completely as soon as possible, and wholly new mills or factories built on the largest practicable scale with the latest proved devices for saving labour and for scientific control of the production process. All hankering after using existing buildings and machinery, unless thoroughly adaptable, must resolutely be put aside.

As to the place which large-scale amalgamations occupy relatively to merchanting firms which have an established business in disposing of the products of the industry, there is much to be said for the view that no adequate reorganisation of an industry is practicable so long as home merchants and foreign shippers continue their business on existing lines. Either they must greatly modify their operations to suit the new industrial organisation, or the latter must develop its own marketing at home and abroad, as has largely been done in the newer industries.

Conditions Favouring Specialisation

Conditions favourable to specialisation did not come into existence until the latter part of the nineteenth century, when the mechanisation of agriculture in North America and most of Europe, and the increasing use of labour-saving machinery in our basic industries, had increased purchasing power; and freight rates by rail and ocean had been greatly reduced. In the last forty years markets have become world-wide, except for tariff obstructions; and the purchasing power of the population of these islands has greatly increased. It may be agreed that general economic conditions have never been more favourable to specialisation by British manufacturers, foreign tariffs notwithstanding. Specialisation is capable of reducing the price at which an article can be sold profitably by 25 to 50 per cent—sometimes by 60 to 75 per cent, if the output be large enough. To obtain a large output disposal abroad at a price somewhat lower than in the home market can be adopted profitably as a permanent policy: witness many American products. Consequently tariffs of 30 per cent, even 50 per cent, will not stop the entry of our goods produced by specialisation into countries not producing with equal economy, and having markets large enough to keep down the cost of marketing.

The above refers to kinds of articles already in use by, or well

known to all but the poorest classes in most countries of the world. In the case of an article for which there is a large potential demand, but which embodies a new idea, and perhaps needs the formation of a new habit, people have to be educated into knowing that the article exists to serve them; and this will cost perhaps more in advertisement than the actual cost of manufacture of the article.

British manufacturers of articles which have been in common use for decades or centuries still cling to the old system of marketing through factors or wholesale houses, except in a few trades like boot and shoe making. This is antagonistic to amalgamations and specialisation; for each manufacturer has his connections in several factors, and each of the latter his connections with retailers on the one hand and manufacturers on the other. To break into such a system with an article, which must be sold everywhere to pay, costs much capital and effort in organisation. Usually it can only be done by an amalgamation of manufacturers in the same trade who can raise capital sufficient to organise mass marketing through their own travellers, or through chain stores.

The foregoing inadequate sketch of the marketing conditions which favour specialisation must suffice, from considerations of space. Another essential condition is the availability of experts who can aid the proprietor, or undertake for him the planning of production and plant. This work is a branch of engineering for which the training is that of a mechanical and electrical engineer, to which must be added a sufficient knowledge of accountancy to understand cost accounting in detail, the balance sheet, and problems of depreciation; and familiarity with wage systems, labour problems and elementary economics. In the United States during the present century production engineering has become a well-established profession comparable with electrical engineering; and much of the astonishing progress of American industries since the war is due to the employment of these experts, both as full-time officers and as advisers or consultants.

A third condition which may be decisive is the availability of new capital. The capital required to build and equip a unit plant for continuous production with modern high-speed automatic machines varies greatly according to the character and size of the article; but is always considerable, judged by nineteenth-century standards. When an industry organised on modern lines has proved profitable the public will invest freely: *e.g.* the gramophone companies in recent years. Obviously a favourable report by well-known independent experts—one a specialist in market

research, the other a production engineer—called in in a consulting capacity would strengthen the prospectus; but such consultants are very few in number as yet in this country and have yet to establish their practice and gain a wide reputation. Another difficulty is that where the article, or machines for making it, cannot be covered by patents, the firm may hesitate to advertise their plans widely by issuing a public prospectus. Investment trusts and issuing houses are needed which will undertake to finance such new plants as their advisers approve, the shares being disposed of to the public after the concern has proved its dividend-paying capacity. There is here an opportunity for the recently formed Bankers' Industrial Development Company, and perhaps for a new investment trust for each of the old-standing British industries.

Capital would be required to the extent of some hundreds of millions of pounds to introduce specialisation throughout our principal industries. I see no prospect of raising the immense sums needed without Government aid; and in our old industries, now subject to intense foreign competition, re-equipment is a speculative investment unless done boldly on a very large scale. Government aid to private enterprise is a vital national concern in the present state of our industries; and it could take the form of advances through investment trusts for each industry or by guarantee of their bonds for a consideration of ½ per cent per annum. The State must protect its own investment, and should protect capital privately subscribed for reconstruction and re-equipment of any industry for which the prospects are good because the conditions are favourable if the plant be modernised. This indicates the probability that safeguarding duties will be imposed to protect an industry during the period of re-equipment; but, unlike the recent and present safeguarding duties, they should be imposed only after the industry concerned has submitted plans for reorganisation and these have been approved. Protection, which must be at a high rate, should be offered only for the precise period estimated to be needed for rebuilding, and for a standard period of five years thereafter. The practical certainty of large profits for five years would give security to the State and to the private investor. It cannot be seriously held that paying a shilling or so extra for a pair of scissors or gloves is a hardship to the consumer.

Another important condition favouring specialisation is the absence of opposition from organised labour. It is commonly believed that Trade Unions have opposed the introduction of

labour-saving machinery in recent years. Whilst no doubt there have been cases of ignorant obstruction, the truth seems to be that the objection has been to changes which would be liable to lower the earnings of their members, and require longer hours, or more effort and attention during the existing hours, for the same rate of wages, on the theory that work involving greater mental or physical strain should be paid at a higher rate per hour. Piecemeal introduction of labour-saving appliances, or different ways of manning existing machines, is very liable to produce these results if profitable from the employer's point of view. Specialisation with continuous production involves the establishment of an entirely new plant; and the problem is therefore different. Even with an increased output the number of workmen employed is likely to be considerably reduced. Many of the machines can be minded by women or men with some intelligence but little training, and a sufficient supply of such labour can be obtained at substantially reduced wages rates. On the other hand, specialisation rightly carried out is so profitable that high wages rates can be paid in any industry; and it is a wise policy to increase rather than decrease the wages of any part of the staff, and to employ as many as possible of the former workmen. On the assumption that this will be the policy, organised labour is favourable to specialisation. In fact, at the present time the demand for rationalisation is coming from labour circles.

Professional Associations

An important characteristic of the second industrial revolution is the professionalising of industry. The general administrative, technical and managerial functions are becoming clearly distinguished; and there is growing a recognition of the qualifications to be required of the candidates to fill posts for each of these functions. Just as the older professions have each their association which sets up a standard of knowledge and experience for admission, so also the young professions connected with industry are organising themselves and establishing standards of qualification for membership. In some cases tests have been introduced: with others that end is in view, and a policy of admission and education has been adopted which will lead up to its attainment.

This movement has extended much further in America than in this country; but here there are a number of professional associations connected with industry already established and at work, even if their membership be not large. Everyone is familiar

with the Institute of Bankers and the Institution of Mechanical Engineers. Formed in recent years somewhat on the same lines are the Institution of Automobile Engineers, the Institution of Production Engineers, the Institute of Cost and Works Accountants, the Association of Welfare Workers and Personnel Managers, and the Institute of Industrial Administration. Although original members were admitted without examination, all these institutions now regularly hold examinations which young men and women have to pass in order to qualify for admission to membership or associateship. The Institution of Production Engineers deserves to be better known. It has set itself the task of raising the status of the industrial specialist to a high standard of education and technical qualification.

An organisation of a different type which is characteristic of the new industrial revolution is the research institute. This may be, in fact, a Government or University department, an association, or an independent corporation. As examples I may mention the National Physical Laboratory, the Fuel Research Board, the Technological Departments in the Universities of Manchester, Leeds, and Sheffield; the British Engineering Standards Association; the National Institute of Industrial Psychology, with its Scottish branch; and the Shirley Institute, Manchester. Another type of organisation for research is that in which a number of firms in a trade combine to form an association to investigate problems in which all are more or less interested, as in the motor industry. "Management research groups" of this character are doing very useful work.

Trade Organisations

Another feature of the present industrial changes is the growing importance of trade organisations in British industries. We have long been familiar with associations of employers set up in opposition to Trade Unions. These belong to the old order of the first industrial revolution. The associations to which I refer do not concern themselves with questions of wages or conditions of employment, but with problems of marketing, the relation of the industry to Government and taxation, and with supplying their member firms with information of a technical and business character. There are over a hundred and sixty such associations in the various British industries, admitting to membership only firms actually engaged in the industry. Most of these associations are themselves members of the Federation of British Industries,

which has also some thousands of firms in direct membership. This federation has a considerable staff for aiding and informing its members in numerous ways. Having been founded only in 1916, it is still young; and it is possible that it may so develop as to take a leading part in the great changes in industrial structure which are needed and imminent in the older British industries.

Trade Results

It was pointed out above that specialisation may be introduced either in conditions of free competition or following the creation of a complete or partial monopoly. As a rule it has taken place and succeeded under free competition, as in America, Germany and some of the smaller European countries. There has usually been a protective tariff; but when the new plant has come into full operation this has become inoperative and an export trade has been developed. In England specialisation is characteristic of the newer industries, situated for the most part in the South Midlands or around London; but there are isolated examples in the hardware industries of the Black Country, and two or three in Sheffield and the north-east coast.

Specialisation introduced by amalgamations has prospered of recent years in America and Germany. England is amazingly backward in this respect. Such a combine as Agricultural and General Engineers has two or three constituent firms producing similar types of tractors and other machines. The National Light Castings Association seems to be interested solely in maintaining prices of products and has done little or nothing to prevent its numerous member firms duplicating each other's products. A dozen firms may be producing the same article in small quantities and selling at an agreed price through the same agency. In the public interest specialisation and continuous production on a great scale is badly needed in all the house-fittings and furnishing, hardware and cutlery trades of this country; and where price associations exist it is astonishing that specialisation is not organised by amalgamations, or by a system of mutual concessions and joint selling agency.

Specialisation taking place under free competition is irregular and unco-ordinated. Marketing is relatively expensive; and supplies of materials are not always assured at reasonable prices. If amalgamation takes place, and some degree of monopoly is established, specialisation can be introduced almost simultaneously for a series of products capable of being marketed together. There

is a chance for the whole industry to be planned, which allows of important economies being realised both by extension to sources of raw materials and by utilising waste products. There is, of course, a danger that monopoly power may be used to keep up prices in spite of considerable reductions of costs having been realised, as has happened in the petroleum refining and tobacco manufacturing industries. If carried to excess this tendency will lead to a demand either for the control of prices, or the taking over of the industry by a public corporation working not for profit, but for a fixed rate of interest on capital. It is important to realise that the professionalisation of industrial management now beginning, together with accurate cost accounting and statistical systems of control, render public operation of manufacturing industry possible; and far easier than the nationalisation of mines, which is insistently demanded.

Social Results

During the nineteenth century England became unaccustomed to the flooding of its markets by manufactured products from abroad. The idea was self-sufficiency in manufactured products, and a considerable export of the same, whilst importing food and raw materials. The progress of the new industrial revolution in other countries has entirely altered the outlook. Articles produced by specialisation abroad will invade our markets more and more, and protective duties would need to be high to keep them in check. Once a British industry had adopted specialisation and established its position it would not need protection.

The nineteenth-century doctrine of free trade did not envisage a situation in which England would be one of a number of highly industrialised countries in all parts of the world. It is obvious that in the new situation that will be created by the second industrial revolution it will be possible to supply the whole population with manufactured goods of the greatest variety; and the problem will then present an aspect which seems never to have been thought out. Apart from primary industries which are dependent on climate or the locality of occurrence of natural resources, the controversy between free trade and protection resolves itself into the question whether we wish most the development of the industries of transport, with their inconveniences to the workers, or of manufactures. For most kinds of manufactured goods now on our markets the home demand will become so great that the limit of reduction of cost by specialisation will be reached

in supplying the home demand. Interchange with other countries would only be desirable if differences of style or of artistic design were appreciated. There would always be, however, a considerable fringe of articles, often recent inventions, in which the limits of economy by specialisation would not be reached in supplying the home market. In this case specialisation by countries would be desirable. Thus, whether protective tariffs should be imposed to guard a home industry or not depends upon the probable ultimate home demand; and, of course, on whether the industry is prepared to organise itself for specialisation.

In conclusion, it may be well to point out that specialisation, no less than complete rationalisation, in any country which adopted it for all its industries would enormously increase the real income of the community. This indicates the outstanding importance of pushing on rapidly with bringing into being the new structure of industry in this country. Beside this, questions of the distribution of gold and bank credit are of slight and temporary significance. The real solution of the unemployment problem in this country is the reduction of the costs of production in industries and agriculture: and this can be done by specialisation and mechanisation. The faster these are pushed on the more employment will there be in expanding the machine-making industries, and in manufacturing tractors and improved agricultural machinery. The building trade would be enormously expanded in constructing the new factories and in solving the housing problem with the aid of specialisation in the production of all the parts and fittings of houses. It seems probable, indeed, that the technological unemployment created by rapid rationalisation of our older industries could be nearly balanced by the absorption of workers in the constructional industries, so that unemployment would remain at about the present volume during the transition period. When the much lower range of prices and new marketing organisation had been brought into being the volume of unemployment might be expected to fall rapidly to perhaps the pre-war proportion of the population. The capital required for the reconditioning of British industries will amount to very many millions of pounds, needed within five years or so. Progress is retarded partly by ignorance of the methods of specialisation, partly by vested interests, partly by the fancied opposition of organised labour, and largely by a general want of confidence. To provide the capital in the large amounts needed as and when required it seems essential that the credit of the State should be used in one way or another.

H. STANLEY JEVONS

A STATISTICAL CONTRIBUTION TO THE THEORY OF WOMEN'S WAGES

I

It is in the nature of a " contribution " that there should be some corpus of accepted fact to which it adds. Hence this paper does not pretend to cover the whole case of women's wages, but starts with the belief that in certain important classes of work where both sexes are employed the women's efficiency wage is significantly lower than the men's, and seeks an explanation of the phenomenon along a new line of observation and reasoning.

The main class of occupations in which both women and men are found to be employed is, broadly speaking, semi-skilled work—that is, work requiring a short period of training and a certain degree of dexterity, responsibility and sensitivity. This work includes the " feeding " and operation of semi-automatic machines; the assembly by hand of standard parts, packing and box-making, etc., and also inspection. The class may be extended to cover the routine work of clerks, shop assistants or waiters.

In such work, output (or sales) is the main requirement, not general resourcefulness; and the quantity and quality of the women's output are certainly not lower than the men's.[1] Nor are women found necessarily more expensive on account of lost time [2]

[1] Here are some representative opinions of employers in various Midland Industries :

" Jobs which are repetitive in character or monotonous or where the unit worked upon is small and light appear to be performed better by girls than by men."

" We have tried workers of both sexes on similar jobs; and making a general comparison of the results we should say, that women equal men in every way, excepting for heavy labour, in the matter of efficiency, while in every case their employment has effected an economy to us in the wages paid."

" In the case of men the unit cost would be much higher for any repetition work within the limit of women's strength. Women are bigger producers than men."

[2] Women appear to have fewer " attacks " of sickness than men, and it is the reorganisation necessitated by the initial non-attendance that is the chief expense to the employer; and though the average duration of women's attacks is longer, it is only very slightly longer if age-groups typically employed are compared. Occupied women are on the whole younger than occupied men and comparison should not be made of the same age-group. See Watson, " National Health Insurance," *Statistical Journal*, Vol. XC., iii.

or labour turnover.[1] Moreover, the period of training necessary for this class of work being short, it is no great loss when the employee leaves (as women do on marriage) after a certain period of industrial service,—the commonest age at marriage being between 21 and 25 for spinsters, a typical length of industrial life for a woman would be eight years. Yet in the general wages system ruling in most industrial countries semi-skilled women's wages are, in fact, below *un*skilled men's wages, and probably only 50–70 per cent. of the wages of similarly semi-skilled men. Thus we are driven to the conclusion that the efficiency wage of men and women is not equal, that their payment is not the same for trades "which are of equal difficulty and disagreeableness, which require equal natural abilities and an equally expensive training."[2]

In accepting the knowledge that in *given classes* of occupation women's efficiency wages are lower than men's, the "main factor in the depression of their wages," that is, "universally recognised," is the "crowding of women into a comparatively few occupations."[3] This view implies that within or without the class of work already considered there is little further work in which women could be occupied, and that the supply of women is much larger in relation to its opportunities for occupation than is the case with men. The latter implication will be dealt with shortly, the former requires immediate consideration.

On the whole, modern technical and organisational developments in industry have reduced the need for heavy unskilled labour and have favoured the extension of the semi-skilled work, at which women can be efficiently occupied. Standardisation and mass production, planning, mechanisation and subdivision of processes all permit increasing use of only slightly trained labour in light repetitive and routine operations. And a few of the more progressive firms have in fact greatly increased the proportion of women they employ.[4] But general statistics of employment show at most only a very slow substitution.

A Home Office study (Cmd. 3508) entitled *A Study of the Factors which have operated in the past and those which are operating now to determine the Distribution of Women in Industry*, gives a

[1] Such figures of labour-turnover as have hitherto been collected (*e.g.* Florence, *Economics of Fatigue and Unrest*, Chap. VI) show a higher turnover among men and boys than among women and girls.

[2] Pigou, *Economics of Welfare*, 3rd ed., p. 549.

[3] Edgeworth, Presidential Address Economic Section, British Association, 1922, ECONOMIC JOURNAL, December 1922.

[4] See C. G. Renold, "The Present Position of Skill in Industry," ECONOMIC JOURNAL, December 1928.

table showing the percentage of females employed in the larger industries in the years 1890, 1895, 1907 and 1928. The figures for three of these years are reproduced in Table A. It can be seen at a glance that the rise in the proportion of women employed in these industries was slower in the twenty-one years subsequent to 1907 than in the seventeen years prior to that year. The only industries that prove an exception to this generalisation are (1) Metal and (2) Printing, Bleaching, Dyeing and Lace Warehouses. This slower substitution of women for men recently has occurred in spite of (1) the considerable substitution of women for men during the war, (2) the recent heavy fall in the employment of female domestic servants and the possibility of their transference to industry, and (3) the present higher proportion of women to men in the population as a whole, owing to war casualties.

TABLE A

Percentage of Women among Total Occupied in Specified Industries.

Industry.	1890.	1907.	1928.
Cotton	60·63	62·25	63·14
Woollen and Worsted	56·47	58·33	60·14
China and Earthenware	37·68	46·21	50·10
Food and Drink	15·81	28·78	36·03
Tobacco	63·31	74·80	72·07
Metal (except Extraction and Founding)	7·27	5·85	13·04
Printing, Bleaching, Dyeing and Lace	27·09	27·11	32·32
Clothing	59·59	66·11	67·96
Paper, Printing and Stationery	26·82	35·92	37·45
Chemicals	9·56	16·02	18·69
All Textile	60·53	62·53	63·89
Non-Textile	15·51	22·80	27·09

The industries given in Table A include all manufacturing industries where women are employed in any considerable numbers. But it excludes such important women's trades as (1) commerce, banking, insurance and finance; (2) insurable professional services; (3) hotel, boarding-house and club services; (4) laundries, dyeing and dry cleaning; (5) the distributive trades. Here, however, we can calculate changes in the proportion of women among all employees since July 1923 by reference to the number of persons insured under the Unemployed Insurance Acts. In these five trades or occupations added together there were in July 1923, 849,030 women among a total of 1,875,290 insured persons—*i.e.* a proportion of 45·3 per cent.; and there were, in July 1930,

1,166,230 women among a total of 2,615,660—*i.e.* the proportion had *fallen* to 44·6 per cent.

One may conclude that substitution of women for men has been taking place gradually since 1890, but that in spite of war-time events, the reduction of women in domestic service and the dilution of labour with increased subdivisions of processes, there is no sign of any acceleration in substitution during recent years.

Whatever criterion we adopt, the rate of substitution cannot be considered high, and is certainly less than is to be expected from the disparity in efficiency wages that we hold to exist, especially for a period when employers have been constrained to think hard about costs and economy. We thus reach what Professor Cassel calls "the heart of the question." [1]

"A good deal has been written about the inequality of wages, for presumably the same work, of the two sexes. . . . But the main question remains unanswered. How can female labour generally and permanently receive a lower wage than it is worth—that is to say, a price below that which equilibrium between supply and demand would fix in the pricing process? When it is said that it is unjust to pay female labour less than male, it is not clear why the employer who employs both kinds of labour together does not increasingly substitute the cheaper female labour for the dearer male labour. There you have the heart of the question. If the employer—and we must assume that he acts from the purely business point of view—does not do this, we must conclude that he puts a higher value on the male labour for some reason or other, in spite of the supposed equal work."

II

But does the employer always act from the purely business point of view, and is he always free to act? In short, is the explanation of the apparent paradox that the employer is not an economic man; or is it that custom, or Trade Unions, block possible economic acts on his part?

Both these hypotheses are, I think, partial explanations. I have circularised several large employers with the question whether, if they considered they got better value for money by employing women (which most of them did), they were able to extend the employment of women, and if not, why not?

Several of the answers indicate either that the employer had not thought about the possibility of substitution and had not made

[1] *Theory of Social Economy*, Vol. I, pp. 314–15.

any estimate of women's efficiency; or if he had thought and estimated, had allowed non-economic consideration to influence his policy.

Thus Messrs. D consider that the existing unemployment among men generally would not justify them morally in "sacking" any more men. Messrs. C considers that though other firms are employing women on jobs similar to some on which they are employing men, yet these jobs are in their opinion not "suitable" for women. "There are plenty of operations which, owing to the character or nature of the work—weight, dirtiness, etc.—we consider unfit for women, and on which we would not employ them. We certainly should not employ women merely because they are cheaper."

As to Trade Union action or custom, the fear that "there may be trouble" is often a deciding factor where the arguments are slightly in favour of substitution. In the Home Office study of *The Distribution of Women in Industry* cited above, the allocation of work by trade agreements and the influence of Trade Unions in restricting women to what they (the male Unions) consider suitable work, is remarked upon in industry after industry—*e.g.* pottery, boots and shoes, tinplates, hosiery and, notably in Scotland, printing.

It was this "unsymmetrical pressure on the employer exerted by men's Trade Unions" that Edgeworth stressed when criticising Cassel's position in his Presidential Address to the Economic Section of the British Association in 1922. And Pigou cites Trade Union pressure or custom as causes why equilibrium is not attained in this matter in the long run.

But there are limits to the effectiveness of Trade Union restrictions and of custom when they are set up against the stark realities of the labour market. If there is only a limited supply of available men and a plethora of available women, as in agricultural or mining districts, women will be employed in the very occupations from which they are debarred in areas where men are plentiful. The Home Office study points to a number of such local variations, particularly in the cotton industry, largely due to the varying strength of the Union's position, which depended, in turn, on the condition of the local labour market.

It is usually assumed that the economic forces of supply and demand act antagonistically to the male Trade Union position; that the demand for women's labour, based on women's apparently superior efficiency in relation to wage, will inevitably undermine the attempt to restrict women's employment. Within limits this

assumption is, I think, valid. A certain supply of women can be obtained cheap, and the men's Trade Union wage will be under cut—but only up to a point. And if this point were not soon reached I do not think that Trade Union restrictions upon the employment of women would avail. In fact, however, *once* a certain number of women is absorbed by industry the remainder do not clamour to overcome Trade Union barriers.

For the supply of women available for employment cheap in any one area is strictly limited by certain institutional factors. This limit to the supply of available women tends to support the Trade Union position, and in the last resort is perhaps the most important factor in the situation. It has not hitherto received much attention, and the particular statistical contribution to which my title refers is the calculation of the proportion of women that can be considered really available for industry over and above those already occupied.

III

The supply of women available for employment consists chiefly of spinsters (and possibly widows) aged 14 to 65. Women leave industry on marriage as a rule. In England and Wales there were in 1921, 7,590,000 married women, of whom only 693,000, or 9·1 per cent., were returned as engaged in a gainful occupation. The corresponding percentage of widows occupied was 26 per cent., and of spinsters occupied 69 per cent. Nor was the percentage of married women who were occupied much higher in manufacturing areas than in England and Wales as a whole. The proportion was 10·8 per cent. in the Midlands, 9·9 per cent. in the London, and 9·7 per cent. in the Yorkshire area; it was higher in the Lancashire (textile) area, namely 16 per cent., and lower in South Wales and the North-East coasts (mining and heavy industries) areas, namely, 3·1 per cent. and 3·5 per cent.

The chief exceptions to the conventional rule of a woman's retirement on marriage appear to occur in the following cases:

(1) Where the occupation is not carried on full-time within stated hours, thus permitting some care of house and children (if any) during the day. This class includes the so-called sweated home-work trades (according to the Census of 1921, 26 per cent of workers "on own account" were married); charwomen (35 per cent. married); and laundry workers (24 per cent. married).[1]

[1] These and the following percentages are given in the *Study of the Distribution of Women in Industry*, Home Office, Cmd. 3508.

(2) Where skill has been acquired before marriage, and can command relatively high wages after marriage. This is particularly true in the cotton industry (28 per cent. of weavers married) and the pottery industry (24 per cent. married). Hence the high percentage of married women occupied in the Lancashire area. In most factory industries, however, the percentage of occupied women that are married is considerably lower, *e.g.* 9 per cent. in tobacco, 7 per cent. in sugar confectionery, scientific instruments, printing and bookbinding, respectively, and 5 per cent. in electrical apparatus.

(3) Among the very poor, where a married woman may, if her husband is incapacitated or unemployed, be driven to seek full-time employment. This class, owing to insurance benefits and pensions, is probably on the decrease, and in any case tends to merge into class (1). It has probably not the importance often attributed to it in pulling down factory wages.

Generally, however, once a woman has definitely left an occupation, *e.g.* is not just temporarily unoccupied while child-bearing, it is unusual for her to re-enter the labour market while still married. Far from any re-entry after the children have been reared, as might be assumed, it can be shown from the Census tables that the proportion of married women who are occupied decreases steadily in consecutive age groups.[1]

In calculating the supply of women available for industrial occupation, therefore, we may concentrate on the unmarried of working ages, *i.e.* from 14 to 65. We shall in the first instance include widows among the unmarried, since in the Census year of 1921 they were not yet in receipt of pensions as such.

Statistics were collected for England and Wales as a whole; for seven County Boroughs within the Birmingham area—(*a*) Birmingham with its boundaries as altered in 1911, thus permitting comparison between the position in the two years 1911 and 1921, (*b*) Smethwick, (*c*) Walsall, (*d*) West Bromwich, (*e*) Wolverhampton, (*f*) Coventry, (*g*) Dudley; and for Worcester, a County

[1] Pigou gives a wrong impression when he writes (*Economics of Welfare*, 3rd ed. p. 564): "In the period 45 to 55, and still more markedly in the period 55 to 65, while the percentage of 'occupied' men declines very rapidly, the percentage of occupied women hardly declines at all, the explanation being that many women return to industry after the death of their husbands. Taking the Census of 1921 for England and Wales and comparing the three age-groups, 35 to 44, 45 to 54, and 55 to 64, the percentage of men occupied is 98, 97 and 92. The percentage of women 22·7, 20·8 and 19·1. This represents a decline from the 35 to 44 proportion of 1 per cent. and 6 per cent. in the two following age-groups in the case of men, and a corresponding decline of 8 per cent. and 16 per cent. in the case of women.

Borough outside the Birmingham area. This last-mentioned County Borough was chosen because of the unusual amount of home-work provided for women by the glove industry.

The numbers given in the first column of Table B are totals of women over 14 years who were occupied in that year. The numbers of women occupied, given in the 1921 Occupation Census, are of women 12 years and over, so that it was only necessary to subtract from this total the occupied women in the age-class 12 to 14 years.

A similar subtraction of unoccupied women 12 to 14 years from the total numbers of unoccupied women 12 years and over was made in order to obtain the total of unoccupied women over 14 years given in the second column of the table.

The third column consists of the numbers of married unoccupied women up to 65 years.[1]

In the fourth column may be found the numbers of all women over 65 years who were unoccupied in 1921. These were taken directly from the County Occupation tables, 1921.

The numbers of " residue " women in the fifth column consist in the numbers of women given in column 2 minus those given in columns 3 and 4 together. They are the unoccupied spinsters and widows aged 14 to 65.

In the sixth column are given the percentages which this " residue " of women constituted of the total numbers of women occupied and unoccupied over 14 years—the sum, that is, of the numbers given in columns 1 and 2.

The last column of Table B giving the corresponding percentage for 1911 shows the changes which occurred in the percentages of " residue " of women in England and Wales and the eight County Boroughs. It is significant that these changes have been only very slight in the case of Birmingham, Smethwick, Walsall and Coventry, which showed the lowest percentages in 1911, and a little greater, relatively, in the case of those County Boroughs which had a somewhat higher percentage of " residue " unoccupied women. The relative position of each of the County Boroughs remained roughly the same during the period 1911–21,

[1] Except for England and Wales as a whole it was not possible to obtain these figures directly from the Occupation Census, and I should like to express my obligation to Miss P. Wylde-Brown, M.A., for the somewhat complicated calculations involved in deriving the figures from the Census returns as well as for compiling the more accessible data into Tables B and C. At one stage in the calculation of column 3 the number of occupied married women over 65 years of age was required, and they could only be obtained by search at Somerset House.

each County Borough having in 1921 a slightly decreased percentage of " residue " of unoccupied women.

Table B

Calculation of Residue of Women available for Gainful Occupation. Census of Population, 1921.

	1. Total Occupied over 14 years.	2. Total Unoccupied over 14 years.	3. Married Unoccupied up to 65 years.	4. All Unoccupied over 65 years.	5.[1] Residue Unoccupied.	6.[2] Residue as % of all over 14.	Similar Residue % for 1911.
Birmingham . .	151,892	210,652	152,131	22,457	36,064	10·0%	10·8%
Smethwick . .	10,410	18,051	13,523	1,643	2,885	10·1%	10·8%
Walsall . . .	12,485	22,991	16,581	2,251	4,159	11·7%	12·2%
West Bromwich .	8,100	18,167	13,117	1,773	3,277	12·4%	14·8%
Wolverhampton .	13,217	25,614	17,877	2,628	5,109	13·2%	15·9%
Coventry . .	15,924	31,652	24,499	2,756	4,397	9·1%	9·6%
Dudley . . .	6,365	13,917	9,954	1,123	2,840	11·0%	15·5%
Worcester . .	7,838	12,670	8,018	1,958	2,694	13·1%	15·2%
England and Wales	5,036,727	9,922,555	6,488,532	1,178,697	2,255,926	15·1%	15·5%

[1] Column 5 = Columns 2 ·		[2] Column 6 = Columns $\frac{5}{1+2}$.

For England and Wales as a whole, the available residue percentage runs higher than in the Birmingham area. This is largely due to the inclusion of the mining and iron and steel areas of South Wales and the North-East coast, where the available residue of women appears (in 1921) to have been between 21 and 22 per cent. of all women of working age. The other " industrial areas " distinguished in the 1921 census—Greater London, Lancashire and Yorkshire—all yield an available residue percentage almost as low as towns in the Birmingham Area, *i.e.* between 12½ per cent. and 14 per cent. Between 1911 and 1921 it will be noticed that the available residue percentage has slightly decreased for the country as a whole.

These conclusions, drawn from the Census of Population, may be " checked " by reference to two well-known "social surveys." In Bowley and Burnett-Hurst's *Livelihood and Poverty* and Bowley and Hogg's *Has Poverty Diminished?* details of the exact composition of each of the families enumerated is given in the Appendix. Earners are distinguished from non-earners,[1] and women below 14 years of age and above 70 (not 65, unfortunately) are separately designated, as also single women; but widows are not distinguished

[1] Earners, being those " who habitually worked for wages," would include the temporarily unemployed, and are practically equivalent to the Census "occupied."

from wives—both are symbolised as "w."[1] Let us hope this distinction will be made in future social surveys to bring results in line with the Census distinctions. From the data given in the later survey, *Has Poverty Diminished?*, Table C may be constructed, relating to Northampton, Warrington, Reading, Stanley and Bolton for the year 1924, similar in form to Table B.

TABLE C

Calculation of Residue of Women available for Gainful Occupation. Social Surveys for 1924.

	1. Total Occupied over 14.	2. Total Unoccupied over 14.	3. Unoccupied married up to 70, plus widows 65–70.	4. All Unoccupied over 70.	5.[1] "Residue" Unoccupied.	6[2]. "Residue" as % of total over 14.
Northampton	482	874	722	38	114	8·4%
Warrington	533	1191	941	31	219	12·7%
Reading	327	995	757	87	151	11·4%
Stanley	58	877	550	17	310	33·1%
Bolton	517	871	689	33	149	10·7%

Column 5 = Columns 2 − (3 + 4). [2] Column 6 = Column

Male labour is immobile enough, but female labour, owing to family ties and social convention, is vastly more so. It is generally a Joint Supply with, or rather a "By-Supply" of Male Labour. We may therefore neglect the large residues of available women in mining and iron and steel areas such as South Wales, and Stanley and the North-East coast. They will hardly affect the labour market in such manufacturing areas as Lancashire, London and

[1] In calculating the figures in Table C on a basis comparable to those in Table B an estimate therefore had to be made for the unoccupied widows aged up to 65. In the Census of England and Wales it was found that the unoccupied widows aged up to 65 years formed 7·7 per cent. of the total unoccupied widows and married women aged up to 70. This latter total is identical with the "w's" in the survey, hence column (3) is 92·3 per cent. of all unoccupied widows and wives counted in the survey, and column (5) includes together with unoccupied girls ("g") daughters ("d") and other females ("f"), 7·7 per cent. of this total of unoccupied widows and wives ("w"). Even so, unoccupied spinsters 65–70 are not excluded from the available women, as is done in Table B; but they are a small number and the error goes against my thesis. The other columns are obtained from the data in the respective "Table X" for each of the five towns surveyed. The figures in columns (1) and (2) are equivalent to the number of women, plus girls 14–16, earning and not earning respectively; the figures in column 4 are identical with those for the women over 70 symbolised by "z" in the Appendix of the Survey.

the Midlands, or in such towns as Warrington, Bolton, Northampton and Reading. Here, since the war, the available residue of women appears from the table to be definitely below 14 per cent. of all adult women. In the manufacturing towns investigated by Bowley and Hogg in 1924 the percentage is indeed in no case above 12·7 per cent. The reason for this slight divergence is not far to seek. The percentages derived from Census figures include all the population; Bowley and Hogg's figures refer only to a representative sample of the working-class population at large, *i.e.* outside of institutions such as the workhouse. It is the working-class population at large that interests us here; hence the Census percentages, surprisingly low as they may appear, require further reduction.

From the residue of apparently available women found in the Census must be subtracted:

(1) The idle rich, comprising girls living at home unoccupied, and women "of means," whether maiden ladies or widows.

(2) Inmates of institutions without hope of entering or re-entering industry.

And both from the Census figures and those of Bowley–Hurst-Hogg must be subtracted:

(3) "Independent" working-class women with sufficient means, *e.g.* a pension, to avoid employment.

(4) Invalids incapable of industrial employment, who are—all the same—living at home.

(5) The mentally defective, living at home.

(6) Widowed mothers with children too young to be left without attention during the day, and who are unable to find others to look after them.

(7) Girls "helping mother" at home. A likely circumstance of elder daughters where there is a large family of younger children.

(8) Women "keeping house" not for a husband, yet not for gain, and therefore not technically occupied. This class would include widowers' daughters or other relatives "substituting" for the housewife.

(9) Schoolgirls of working age, *i.e.* older than 14.

An estimate of the percentage of all adult women (numbering approximately fifteen millions in England and Wales, 1921), which women in these nine circumstances probably form, is given in Table D.

TABLE D

Proportion of Women not available for Gainful Occupation, even though unmarried and aged 14–65, on account of Specified Circumstances.

Circumstance.	Sources of Information and the Methods of Estimation.	Estimated Percentage of all Adult Women (15 millions) (1921).
(1) Idle rich.	260,000 had incomes over £700 in 1910. Probably about half were, or supported an idle unmarried woman, 14–65.	
(2) Inmates.	132,000 women over 12 in institutions or homes in 1921. At least one quarter unmarried women, 14–65.	¼%
(3) Independents.	Sample investigation (see footnote [1]). Percentage included in Class 6.	
(4) Invalids.	1·3% of spinsters and widows, 16–64, received disability benefit under Health Insurance at any one time = 0·6% of *all* adult women. Add invalids never insurable.	1%
(5) Defectives.	0·475% of females over 16 mentally deficient or imbecile (excluding idiots). Half at home and unmarried.	
(6) Widowed Mothers.	575,000 widows, 14–65, *unoccupied* in 1921. One-quarter tied to children, or pensioned, etc.	1%
(7) Mothers' Helpers.	Sample investigation of unoccupied girls not at school, aged 14–16 (see footnote [1]).	1%
(8) Substitutes for Housewife.	Sample investigation (see footnote [1]).	1%
(9) Schoolgirls.	In 1921, 62,000 over 14 in elementary schools, 80,000 (estimated) full-time in secondary and higher education.	1%
	24302.	6¼%

A partial check on the estimates in Table D is afforded by reference to the Census Returns of unoccupied *males* aged 14–65. The total of these for England and Wales in 1921 was 680,000, or 5·2 per cent. of the total of the 13,150,000 males over 14. Lack of occupation on the part of men cannot be attributed to circumstances (6), (7) and (8), and not in the same proportions to (1) and (3); but similarly to the case of women, may be due to men being

[1] Among a total of 5,790 women over 14 investigated by Bowley and Hogg in 1924 at Northampton, Warrington, Reading and Bolton, 71, or 1·25 per cent., were unmarried yet unoccupied in homes where there was no other woman unoccupied—presumably they were keeping house in substitution for a married unoccupied woman (circumstance 8); 136, or 2·4 per cent., were unoccupied girls between 14 and 16—some of these would be at school (say 1 per cent.), but most of the others, *i.e.* 1·4 per cent., were probably "helping mother" (circumstance 7); 24, or 0·4 per cent., were living unoccupied and alone, presumably (circumstance 3) with independent means. In Table D these percentages of 1·25 and 1·4 have been reduced to a conservative estimate of 1 per cent. and 1 per cent. respectively, and the 0·4 per cent. of independents included under circumstance 6.

(2) inmates, (4) invalids, (5) defectives, (9) at school. Under (9) the percentage is approximately the same as for the girls—1 per cent. But the remaining 4·2 per cent. cannot be directly compared with the women's percentages in circumstances 2, 4 and 5—totalling 1½ per cent. in our estimate. For a proportion of all women that are (2) inmates, (4) invalids and (5) defectives has already been subtracted in subtracting married unoccupied women up to 65 to obtain the "available residue." These married unoccupied women numbered slightly under half of all women aged 14 and upward (see Table B, Columns 1, 2 and 3). Hence the unmarried yet unavailable percentage under these circumstances (2, 4, 5) should, on the analogy of the men, be somewhat over half of 4·2 per cent.; or, if we subtract the handful of idle rich (1) or independent (3) males aged 14–65, perhaps just under 2 per cent. This tends to establish the estimate of 1½ per cent. for the women as somewhat conservative.

The nine additional classes of women probably unavailable for industrial occupation differ, of course, in the degree of their probable unavailability. Classes (1) the idle rich, (2) inmates, (4) invalids, (5) mentally deficient and (9) schoolgirls totalling 3¼ per cent. are probably *entirely* unavailable. Classes (3) independent working-class women, (6) widowed mothers, (7) mothers' helpers and (8) substitutes for housewife can probably be drawn upon by industry to a limited extent; they are partly available as a supply of labour, but that supply is highly inelastic. The result of subtracting these additional percentages of all women over 14 that are probably unavailable is given in Table E.

TABLE E

Further Correction of Available Residue of Women as percentage of all Women over 14.

	Census of 1921: Birmingham Area Towns.	Bowley and Hogg, 1924: Survey of Four Towns.[1]
Residue available, Column (6), Tables B and C	9·1–14·0%	8·4–12·7%
Additional % entirely unavailable .	3¼%	2¼% [2]
Possibly available	5¾–10¾%	6¼–10½%
Additional % partly unavailable .	3%	3%
Probably available	2¾–7¾%	3¼–7½%

[1] Excluding Stanley.

[2] Women unavailable for circumstances (1) and (2) were not included in the Surveys.

IV

We have now reached the admittedly paradoxical position that women's wages are low because their supply is limited. But I do not think that this conclusion necessarily proves that *either* my own explanation *or* the general theory of supply and demand is untrue. The paradox only emphasises the importance of thinking in terms of *curves*, and of realising the assumptions on which the theory is based. The theory may not be untrue, but merely inapplicable under the actual circumstances.

The supply price of women's labour is in my view a curve beginning low, but sloping steeply upward as the amount of labour called forth increases.

The women's supply curve certainly begins low compared to the men's.

> "Fathers of families expect a family wage, and since most workmen either are, have been, or expect to be fathers of families, an effective majority of all male Trade Unionists will insist on a family wage being written into their 'collective' bargain with the employers. They meet the employers in a solid front with an agreed common rule for which all are prepared to strike if necessary. Not so among women. Among working women there is not one standard upon which a sufficient majority can agree and force upon the minority. For there are probably as many girls industrially employed who are living with their parents, and not wanting full keep, as girls and women living alone or trying to keep themselves and support dependents to boot. There can be no agreement to strike for wages sufficient to meet the heavy demands upon the women supporting others, and any wage adequate to their needs that may be secured is likely to be undercut by the low standard of requirements of girls partially supported by others." [1]

But, as suggested above, the women's supply price will after a point curve steeply upward; and the shape of the whole curve may be presented concretely by an estimate of the numerical frequency of the various groups composing the supply of women. Possibly about 10 per cent. of occupied women and girls offer themselves for employment merely to avoid the tedium of home, helping mother sweep, wash dishes and darn clothes,

[1] Florence, *The Statistical Method in Economics and Political Science*, p. 41.

etc.,[1] and to secure the social companionship of the factory and a certain independence. This proportion of occupied women might well have a supply price as low as from 0–10*s.* a week. Next in order of supply price, willing perhaps to take as little as 10*s.*–15*s.* a week, come the large proportion of all occupied women and girls, say 50 per cent. who are expected to contribute to a family income the bulk of which is earned by a father and possibly by brothers and sisters. Next come those supporting themselves and perhaps requiring at least 15*s.*–20*s.* a week; the proportion of self-supporters among all occupied women is, say, 20 per cent. Next come those women who have the responsibility of partially or wholly supporting dependents. The proportion of these among working women is, according to Rowntree and Stuart,[2] 12 per cent.; they might well require from 21*s.* to 35*s.* according to the fraction of dependents and their bargaining power, if they are to avoid the workhouse.

In addition to these classes of women with fairly *fixed* ideas as to their requirements, are others who are not particularly bored or exploited at home, are not expected to contribute to the family income, and need not support themselves or dependents. They are those simply attracted by what appears to them "big money;" but clearly to different women the necessary attraction into industry has to be of various sizes of bigness. It varies all the way from pin-money to something really handsome, such as 40*s.* a week and over. The number of such pin-to-trousseau-money girls will vary according to the wage, but I do not think they are numerous. Let us suppose that at a ruling-wage of 25*s.* to 30*s.* they form the remaining 8 per cent. of occupied women; but that a few more of this type can be secured if the wage is raised substantially.

The question, then, is whether it is worth while the employer increasing women's wages all round merely to secure the additional extra-marginal women holding out for wages above those ruling in the market. The *possible* further supplies of women available, which in the Birmingham area form from $5\frac{3}{4}$ per cent. to $10\frac{3}{4}$ per cent. of available women beyond the 42 per cent. actually occupied,[3] might only be called forth by wages at least as high as 40*s.* a week. If larger inroads are to be made on the less available women and if, in consequence, the working-class prejudice against taking girls away from home and against the employment of married women

[1] See Graham Wallas, *The Great Society*, Chap. XIII.

[2] *The Responsibility of Women Workers for Dependents*, Oxford Press.

[3] Column 1 ÷ (1 + 2), Table B, Birmingham. It is even less in other towns.

is to be overcome, then the wages offered might well have to rise still more steeply.

Probably in manufacturing areas close upon 50 per cent. of adult women are absolutely unavailable at any likely wage that would be paid. War experience showed that even as late, in the deliberate policy of substituting women for men, as January 1918, the number of women added to those in pre-war employment (when the reduction in domestic servants is allowed for) was little more than 30 per cent. This would represent 55 per cent. of all adult women in Birmingham (130 per cent. of 42), and in peace times there would not be the release from domestic duties of married women without young children due to the absence of the husband on service; the "home fires" have by custom to be kept burning all day. The shortage of available women was, by 1918, indeed, clearly realised in official quarters.[1]

> "The quarterly reports (of the Board of Trade) for October 1917 and for January 1918 again raised the query as to whether the supplies of female labour were not approaching exhaustion. In October the report for the quarter showed that the increase in the number of women employed was only 48,000 as compared to 140,000 the preceding quarter. In industrial occupations the increase had been only 21,000 as against 73,000 the preceding quarter. The report for January 1918 is even more striking. The total gain in the number of female employees in all occupations was only 4,000."

The importance attached to the fact that the available total supply of women is limited must meet a serious objection. It is not the total supply of women the industrialist cares about, but the supply for his particular works, and he might well be able to secure women by transference from other employments. In theory an industrial employer should be able to substitute women for men by offering a wage merely sufficiently high to transfer them from other employers, and this would force the other employers to raise the wages of their women employees in self-defence, thus raising the whole level of women's wages.

In dealing with this objection two cases must be distinguished:

(1) Possible transference between manufacturers.

(2) Possible transference to manufacturing industry from other women's occupations.

[1] *British Labour Conditions and Legislation during the War*, Hammond, Carnegie Endowment, Oxford Press.

(1) There are at least two assumptions underlying the contention that manufacturers will gradually, bit by bit, bid up the wages of women against one another that are in practice not satisfied. There is not (i) perfect competition nor yet (ii) complete divisibility.

(i) There is a generally accepted rate for women—part of the system of wages made familiar to us by Professor Clay—which bears a definite relation to skilled and unskilled men's wages, and which would be difficult to alter without also disturbing the wages of those other, men's, grades. As Mr. Dobb points out, the rate of wages ruling in the past tends to determine present and future wages. Employers, and sometimes (male) Trade Unionists, seem to have definite views of what a girl or woman *should* earn—certainly of what it is too much for her to earn. Any employer raising women's wages even slightly above this maximum would therefore tend to fall foul of his fellow-employers in the same district, and possibly his male employees. As a result there is a sort of unilateral buyers' monopoly in the sense that there is a limit, tacitly agreed upon, to the price offered in any local market for women's labour, and that, owing to the weakness of women's Trade Unions, this quasi-monopolistic ring is not met by a corresponding sellers' monopoly or ladies' agreement on the part of the women.

(ii) Indivisibility appears both (*a*) in women's wages structure and (*b*) in the amounts by which employers add to their female working force.

(*a*) Women of given age-groups employed in industry tend to have a very similar rate of wage, and the deviations from the average level of wages are certainly much less than in the case of men. Women workers, in fact, are not usually graded into skilled, semi-skilled, unskilled classes, nor are they as a rule differentiated into separate crafts. Hence it is difficult for any employer to raise the wages of women in one group which he wants to increase without raising the wages of all the women he employs. The additional profit obtained by substituting additional women for men may thus be offset by the addition to the wages of women he employed originally and whose service he could have continued to obtain at the original wage.

(*b*) Even though such a steep rise in the supply-price of women as I have indicated might still allow the strictly economic employer to substitute women for men *individually*, it must be realised that women do not customarily work side by side with men on the same job, but are substituted, if at all, in *quanta*; a

"battery of machines" or a whole department is transferred *en bloc*. One large-scale employer of women whom I questioned stated definitely that "with regard to the substitution of women for men individually we find it desirable to make changes in respect of sets. We would not consider, for example, in a men's department taking a man off any particular class of work and putting in a woman to do it. We do not look with favour upon the indiscriminate working of men and women together, and in the comparatively few cases where we have joint work, the women work together in batches entirely under the control and supervision of a forewoman."

This *bloc* transference of a whole section from men to women usually necessitates rearrangement in the division of labour and the handling of machines; and once such rearrangement is undertaken with all the expenses in thought, time and money involved, the employer must be sure that the supply of women is, and will continue to be, sufficient to keep the new plan going. In short, the substitution of women for men that might be theoretically expected often fails to occur to any large extent because the wages employers would have to pay to obtain and maintain ample and continuous *quanta* of women's labour would be very much higher than current wages, and might, when added to the expenses of the necessary reorganisation, entirely cancel the "better value for money" that the current women's wages appears to give.

(2) Finally, there is the possibility of transference to manufacturing industry of women in entirely different occupations.

The geographical immobility of women has already been referred to. There is a definite social convention against girls leaving the family circle, and hence women stick in the locality where the father or brother can find employment and do not move to places where they themselves can be employed, or might find higher wages. But there is also a distinct immobility as between large groups of women's industries. In particular, manufacturing industries do not readily draw supplies of women from (*a*) the commercial occupations or (*b*) the domestic and personal service group. Women in group (*a*), such as typists and shop assistants, consider themselves definitely in a higher social class and would have to be in very dire distress before they moved "downwards" into factory work, however high the wage bribe. Women in group (*b*), though perhaps less set apart socially, are yet, if domestic servants, often set apart geographically. The gentry who employ them, whether at home or in hotels, avoid industrial districts wherever possible, and the supply of domestics is thus not

conveniently distributed as a source of industrial labour More-over, even if domestics live in industrial districts there still remains the prejudice (in their parents' minds if not their own) against abandoning living-in for lodgings. Prejudice might be overcome if domestic service were paid much less than industrial work, but when the free board and lodging is added this appears no longer the case.

V

The contribution of the statistical evidence I have submitted may be summed up as a criticism of the general assumption that women are "crowded" into a few occupations. The women available for gainful occupation are by no means as numerous as the available men; and the fact that more occupations are closed to women than to men does not prove more over-crowding. There are fewer women's occupations, but then there are fewer—perhaps only half as many—women available.

That in spite of their lower wage per given efficiency, women are not increasingly substituted for men appears in fact to be due to a naturally, or rather a conventionally, caused limitation of their available number. The working-class convention that women retire on marriage tends to prevent the "calling forth" of married women (and some others with married women's conventional duties) back into industry by any wage likely to be thought reasonable in business circles. The fundamental factor is thus the women's supply-price curve, and this probably rises steeply after a certain amount of "self-low-priced" labour has been absorbed.

Taken in conjunction with elements of unilateral monopoly, indivisibility and immobility in the women's labour market, it is this peculiar supply-price curve that explains, in my view, Cassel's paradox of women's non-substitution for men in spite of their apparent better value for money.

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SCHUMPETER AND THE CONCEPTION OF STATIC EQUILIBRIUM

In spite of the acute practical problems which arose in the post-war period, German economic theory remains as much occupied with fundamental theoretical questions as ever it was, but with the difference that it is so much concerned with its own incapacity to deal with these practical problems that it has become more remote and abstract than ever. For this reason it is now tending to concentrate on one central question, the static-dynamic antithesis, an issue which, as Professor Robbins showed in his article in the June number of the ECONOMIC JOURNAL, frequently occupied British economic thought until Marshall more or less intentionally neglected it, and which long continued to occupy economic thought on the other side of the Atlantic. In Germany, however, the ambiguities of the conception of static equilibrium have always been fully realised,[1] and the limitations of analysis of the economic system on static assumptions are always emphasised, either because such analysis hardly seems to explain the facts, so much are the operation of the laws impeded by "friction," or because these "frictions" are regarded as disturbing, not merely impeding, forces which demand treatment in their own right, by a new method of analysis. In England in the past few years the abolition of those tenets and devices of orthodox theory—increasing returns in industry, the representative firm—which arose from forcing non-static elements into the static frame, has not been accompanied either by belief in the possibility of further perfecting the static analysis or in the possibility of analysis on new lines. In Germany there has never been an orthodox school; new theories have multiplied rapidly in the last fifty years, falling into one of the two main classes of theorising, the historical-sociological, that is, the classical attitude, and the mathematical-deductive, which were roughly equal in influence before the war and continue to develop on opposed lines. No synthesis of the new value theory with the work of the classical economists comparable to Marshall's has ever been attempted, principally because the work of the formative theorists,

[1] For instance, see Streller, R., *Statik u. Dynamik in der theoretischen Nationalökonomie*, 1926, and Heinze, *Statische oder dynamische Zinstheorie*, 1927.

List and Marx, was so alien to the methods of the mathematical type of analysis. From the standpoint of German theorising the significance of Schumpeter's work lies in its apparent success in synthesising the contributions of the two schools, by means of a new definition of the terms static and dynamic. To treat his insistence on the importance of the static-dynamic distinction as a doctrine based on the Clarkian construction, or a misunderstanding of it, points to a complete misapprehension of the system's logical basis and theoretical significance, which consists precisely in the meaning he attaches to those terms.

The contributions synthesised are the same as those synthesised by Marshall, though they appear in a different disguise, owing to the peculiar characteristics of German economics. In attempting to formulate the law of the mutual determination of prices, costs and earnings (the *Zirkulationsprozess* [1]), German theorists always received the utility principle, as expounded by the Austrian school, and even in the hands of Wicksell, with distrust, on account of its reliance on subjective valuation, which seems to vitiate its validity as a basis for a system of objective relations. Though this objection appears less cogent to the non-German mind, it appears to carry more weight than the more commonly made objections, for instance, that the equation of exchange can only deal with single commodities and assumes a price level already fixed. The objections to this particular method of expounding the first principle of economic theory were so acutely realised that the leading modern deductive theorists have not attempted to work with it at all: Liefmann, Oppenheimer and Engländer develop their own formulæ. The formulæ themselves are not important; but what is important is the result of the searching criticism of the utility principle from which the alternative approaches are developed. The theorists are occupied much more with the "lie" of the theory of value than with its potential developments, whereas British theory, in its haste to get a conclusion from it with some bearing on actuality, has often neglected to define its assumptions. The phrase "die sterbende Wertlehre" gives a wrong impression—what is dying is not value theory but the *ceteris paribus* which used to accompany it. The result of all this examination is the conclusion that any general theory of value which aims at expounding the mutual determination of real costs and incomes and prices—that is, the

[1] Lederer, E., "Der Zirkulationsprozess als zentrales Problem der ökonomischen Theorie," in *Archiv für Sozialwissenschaft*, 1926.
A. Ammon, "Der Stand der reinen Theorie," in *Festgabe für Brentano*, 1925.

power of self-adjustment in the economic system, or the equilibrium tendency—must assume a society, not only without classes of producers (as Wieser showed), but a society without capital, and therefore without development. The only merit of the marginal utility method of analysis as compared with the labour theory was its sharp emphasis on the problem of imputation (*Zurechnung*); instead of asserting, as the labour theory did, a rough and vague connection between real costs and incomes and prices, it insisted on the necessity of attributing increments of the products to increments of the productive factors, and thereby raised the problem of the existence of a non-imputable income, interest.

The theorem of the mutual determination of incomes, costs and prices must assume a system of exchange and division of labour in which each individual or group of individuals produces for the market, where they exchange their products for the products of other individuals or groups, their earnings depending on their output, their demand on their earnings; no producer or group of producers can charge more for their product than its cost of production, *i.e.* what it costs the producer to live. There are no incomes but earnings, and all earnings must be imputed to an earner. Interest is an income which cannot be imputed to any earner, neither to a person nor to concrete commodities, and must therefore be excluded. No saving is possible because income only covers needs. (What the standard of living is is quite immaterial, as long as it is taken as given.) The system runs, not on the principle of a "reasonably consistent pursuit of economic gain," [1] but on the *Bedarfdeckungsprinzip*, and there is, therefore, no question of economic motives, unless the economic subjects cease to see the necessity for living. These are the conditions for the purely competitive state, the "natural system," the "solar system of equilibrium and balance."

This conception, as an instrument of theoretical analysis, is a necessary stage in any theoretical exposition. The difficulty is to place it, once the assumptions for its proper working have been made clear; it is obviously not real in the sense that it is or ever was (though primitive communities may come near to it). To say that it is the principle on which every economic system runs, normal in the scientific sense, is no help at all. That may mean either that it *is* the present economic system working under a tangle of restraints and hindrances of all kinds, but still working,

[1] The system on which Marshall's system runs, according to Homan (*Contemporary Economic Thought*, 1928).

and capable of working perfectly if as many of the restraints and hindrances as possible are removed, or that in the real world there are forces working against the normal system so powerful that it acts as a brake on them, not they on it. Schumpeter places it by holding that the law works in any economic system, so far and only in so far as the economic subjects adapt themselves to changes. To that extent the whole system is static, though not necessarily stationary; it changes, but does not itself generate any change. It may grow, by increase of population or expansion of the area of cultivation, but it adapts itself to, and does not develop itself from, the given conditions. For its proper working it is not necessary to assume that there has been no previous capital investment, only that there is no capital in the book-keeping sense, *i.e.* disposable resources for investment. Thus his conception avoids the difficulties of the starkly fictitious, purely working society of Marx. The whole force and value of Schumpeter's teaching is concentrated on this new definition of the static state.[1]

But in the actual economic system we are familiar with surpluses over earnings accruing to individuals and groups which arise from changes in the system, new products, processes, new organisation of production. If the natural system is conceived of as one which does grow of its own accord, value theory must account for these surpluses and the method of their utilisation. But if the natural state, in which the law of the mutual determination of prices, incomes and costs is valid, is unable to generate any change itself, the existence of these surpluses must mean that something non-economic has happened, not to be accounted for

[1] Professor Robbins objects ("The Conception of Static Equilibrium," ECONOMIC JOURNAL, June 1930) that to state dogmatically that "Arbeit und Boden" are the only "Ertragsquelle" in any static conditions is to beg the question completely. But Schumpeter, in the passage which Professor Robbins finds inexplicable, says only "unter unseren Voraussetzungen," *i.e.* in his own special meaning of the term. The question which his definition attempts to answer is simply "Under what conditions does the law of mutual determination of incomes, prices and costs work?" and his answer—an answer which is, in his own opinion, the special contribution of German economic theory, originating from the combined influence of Marx and Böhm-Bawerk (cf. *Wirtschaftstheorie der Gegenwart*, 1927, Vol. I. p. 26)—is, "only when there is no development, that is, without capital and therefore without interest," because interest is an income which cannot be "imputed" to an earner. Professor Robbins seems to suggest that the argument is reversed, that Schumpeter first, on the basis of some special interest theory, describes interest as a dynamic income and then can find no place for it in static conditions. When the special assumptions of the static state are held in mind, Professor Robbins's criticism, that if there is no yield to the use of capital, there is no reason to refrain from consuming it, does not affect the argument.

by that law. From that law we cannot even determine whether such surpluses will be consumed or invested in the means of production to introduce further changes, let alone the existence of conditions favouring their utilisation, such as a credit system, a reserve army of labour, differences in industrial structure, a legal system permitting private ownership of the means of production and inheritance of property—conditions not merely disturbances of the system of equilibrium, but aids to the functioning of this non-economic process. On that basis, theory cannot regard these surpluses as the result of friction, but must treat them as the result of something at work which does generate change. This is the acquisitive motive, the *Erwerbsprinzip*, not postulated in the adaptive state.

In the treatment of this motive, Schumpeter's indebtedness to the other great school of German economic thought, the school of Sombart and Max Weber, is apparent. The acquisitive motive was always taken for granted by British theorists as the only principle of all economic systems, principally because economic theory and capitalism grew side by side; but in Germany the teaching of Sombart, that it should be regarded as a special historical manifestation—owing to excessive emphasis on methodology [1] (partly also perhaps to the later survival of other types of economic organisation)—has a firm hold. Schumpeter takes over the emphasis on the spirit of capitalism, without the accompanying doctrines, and treats it as manifested principally in a special activity. On to this concept of economic activity he throws the whole weight of his theory of economic development, just as Sombart throws the whole weight of his theory on to the spirit of the capitalist system, only in the one it is a mystically approached historical phenomenon, and in the other a datum in a mechanistic theory of economic development.

This activity may be described as innovation,[2] though it is a

[1] Sombart, in an effort to avoid those excrescent doctrines in Marx which arose from the attempt to interpret history on the Hegelian plan without the Hegelian doctrines, intended to treat historical epochs as causally, not logically, generated from each other. In fact, in the introduction to his *Modern Capitalism*, his conception of history is more Hegelian even than that of Marx: the whole classification turns on his application of the term *Hochepoche* to the epoch in which the spirit of a single economic system achieves its full consummation. Such reliance on the unifying force of the spirit is the dialectical method itself. Cf. Troeltsch, *Die Historismus u. seine Probleme*, p. 366.

[2] This term simply means any sort of interference with the adapting system: what Veblen describes as "interstitial adjustment." Patten and J. B. Clark used the term in exactly the opposite sense; for them the dynamic forces were changes in the wants of consumers which call forth responses in the shape of change of processes, new discoveries and organisation of production, and that is,

function of co-ordination at the same time. In the static state the wants of the consumer co-ordinate the system: no further co-ordination is necessary (as it was necessary in the static equilibrium of British orthodox theory). "Successful innovation is a task *sui generis*. It is a feat not of intellect but of will. It is a special case of the phenomenon of social leadership." [1]

In the capitalist system, the capacity to exercise this will is—*de facto*—confined to a relatively small number of people. (Schumpeter does not, of course, intend to divide humanity into two types, the entrepreneur and the adaptive type, the *Wirt schlechtweg*; in most individuals the characteristics of both types are present in different degrees. He only wishes to avoid the obvious fault of the orthodox system which was obliged to assume that every economic subject was both capable of acting and able to act in this way.) Consequently incomes derived from this activity are not earnings. They are temporary monopoly rents; temporary because as soon as the innovation is made, it is imitated. If such incomes are supposed to arise from risk-taking, management or waiting, it is implied that anyone can earn these incomes, since the real cost of doing these things is more or less the same for everyone. By calling these incomes surpluses it is not intended to deny that those who get them take risks, manage, abstain or wait, but that they are paid for the monopolistic performance of these functions, not for the performance itself. There is no question of real cost, since the individual either has the capacity to act as entrepreneur or he has not.[2]

This activity is connected with the process of self-repeating economic activity by the payment of interest, since every innovation necessitates a new combination of productive factors and

of course, a process of adaptation, not the creation of new wants by innovation. Clark regards the dynamic forces as oscillations round the equilibrium and economic progress as a series of hops, accompanied by friction, from one state of equilibrium to another. Consequently, he keeps the regular rate of interest-determined-by-productivity doctrine side by side with the doctrine that there is no abstinence in the static state (and should conclude, therefore, that interest cannot be treated on the assumptions of that state), and considers it legitimate to treat wages and interests as static incomes determined by their marginal products, side by side with the dynamic income profits.

[1] Schumpeter, "Instability of Capitalism," Economic Journal, Sept. 1928.

[2] Mr. Dobb's treatment of entrepreneur income as rent arising from institutionally secured monopoly is in principle similar to Schumpeter's. Schumpeter does not flourish the historical fact of special privilege—which he might possibly regard as a circular argument—but the monopoly which arises from a division of humanity into two classes—a natural division greatly intensified by capitalist institutions.

therefore additional purchasing power. The credit institutions, by letting the proportion of liabilities to reserves increase, give the entrepreneur the right to make the new combination, and nothing limits their power to do this but the supply of entrepreneur ability existing at the moment, *i.e.* the opportunities for successful innovation, the prospect of additional goods being produced which will subsequently counteract the effect of the creation of the new purchasing power on the price level and bring about a new equilibrium. Since there is no possibility of saving in static conditions, the banks' reserves must have originated from previous developments; they represent only an insurance fund against failures, and are not, in any sense, the source of the new loans. But the rise in the price level occasioned by the grant of additional purchasing power is not a phase concluded as soon as the entrepreneurs' undertaking is producing; the rise in the price level stimulates the demand of other entrepreneurs who can only make profits at the higher level, unlike the first, who made profits at the level existing under static conditions; their demand causes a further rise in prices, and stimulates demand from entrepreneurs who can only make profits at a higher price level than the actual increase of credits will cause, that is, demand from unsuccessful innovators. At some indefinite point the increase of purchasing power must be checked and a new equilibrium must work itself out.

If, however, credit creation is not limited, either by the amount of goods existing at the time or by savings, there can be no supply price for credit; it should not be necessary that the entrepreneur should pay a price for the purchasing power granted to him, and it is quite conceivable that he should be paid for his services. No further restriction on the amount of credit granted is necessary, since the amount of entrepreneur activity, that is to say, the demand, is naturally limited, while the supply of credit is not. Schumpeter's answer to the question of why the rate is always a positive one is that the entrepreneurs' demand, though never infinitely great, is only subject to very vague limits; there are grades of ability, and the effect of satisfying the demand by the issue of credit has the effect, not of checking demand, but stimulating it still further, so that in a time of credit expansion the limits tend to disappear. Entrepreneur ability can only be tested under given conditions, *i.e.* with a definite price level, and when the level is rising the line between successful and unsuccessful tends to vanish. The banks' power of creating credit is limited, first, by the necessity of maintaining a reserve against failures,

then by the necessity of compensating for a possible increase in the price level which will diminish the value of the loan when it is returned, and by the necessity of paying the banker for his work and special knowledge. What the relative importance of the three is, is not explained, but together they are sufficient to account for the fact that the rate is always positive. The actual level of the rate depends on the whole complex of economic conditions. Interest is the special means used by the capitalist system for the introduction of new combinations; it acts as a kind of carburettor, regulating the mixture of innovation and adaptation necessary to the running of the system. The whole doctrine in its essentials is already familiar to English readers in Professor Pigou's credit creation chapters; Mr. Robertson's "imposed lacking"; Mr. Hawtrey's emphasis on saving from profits.

Interest is consequently not a separate class of income nor a permanent source of return. When the entrepreneur has established his new enterprise, he obtains profits and can pay interest so long as the enterprise remains an innovation, that is, until competitors arise, reduce his prices and his profits till the product is produced "kreislaufmässig," *i.e.* when returns only cover wages and rent. The nature of this process is concealed, because in individual enterprises innovations are repeatedly being made, or the entrepreneur's monopoly is somehow secured by artificial means and income from it becomes rent. Here Schumpeter's teaching runs parallel with the doctrine that the rate of interest is "only applicable to long-period investments in a very limited sense," from which it might have been inferred that there may be no separate category for it at all.

Is Schumpeter's theory, then, no more than re-classification? If it is only that, it should be possible to treat the entrepreneur earnings as a special case of monopoly under a competitive system. But if the old apparatus is applied, earnings are not intelligible at all except as earnings of undertakings. Payment for the services of the entrepreneur is payment for his total utility,[1] and

[1] This is recognised by Edgeworth in his refutation of Hobson ("Theory of Distribution," 1904, in *Collected Papers*): while rejecting Hobson's statement of the problem of imputation as a misunderstanding of the spirit of the calculus, since it takes land, labour and capital as a single dose each, he really admits the argument which Hobson could have used, that while applications of land, labour and capital can conceivably be made in infinitely small increments, the entrepreneur function, being creative, is indivisible. It can only be so treated if it can be regarded as identical with the work of the salaried manager—as Edgeworth evidently thought it could not; the salaried manager is just as much Schumpeter's *Wirt schlechtweg* as the average labourer.

the value of the total supply of an indispensable commodity is infinite. Since each entrepreneur is indispensable to his own enterprise, and the entrepreneur class (or rather type) is presumably indispensable to the whole system, it should follow that each entrepreneur can claim all the earnings of his own enterprise and all the entrepreneurs can share out the natural income among themselves. There can be no principle of distribution, for while it is to the interest of the individual entrepreneurs to reduce their costs to the lowest possible level, it is the interest of all the entrepreneurs to keep them as high as possible.

Using the old methods of analysis with the new classification therefore means a relapse into chaos; all maladjustments and frictions can produce a theoretical *raison d'être*. Any payment over the "usual rate" is, *ex hypothesi*, return for the exercise of entrepreneur activity, for it is the existence of the payment which proves the existence of the function rather than the exercise which necessitates the payment. All temporary spreads are justified, not because they support in the intervals of adjustment the anticipations which reductions in real costs are expected to justify, but because they are necessary to call forth innovation. But temporary spreads cannot measure the amount of entrepreneur function that has been exercised; it is not capable of measurement. The existing state of affairs is explained away. This is precisely the result which Schumpeter wishes to establish: that capitalism is not a system which can be treated with the same theoretical apparatus as can be applied to the static state. It is not a chaos, but it is not capable of analysis on a single principle. The two elements must be given the treatment suitable to them: if economic theory is to develop, it is necessary "to relegate to one distinct body of doctrines the concept, the continuous curves and small marginal variations, all of which in their turn link up with the circuit flow of economic routine under constant data, and to build up alongside of this, and before taking account of the full complexity of the real phenomena, secondary waves, chance occurrences, 'growth,' and so on, a theory of capitalistic change, assuming in doing so that non-economic data are constant and gradual change in economic conditions is absent."[1]

There is, therefore, involved in Schumpeter's doctrine a fundamental divergence from the type of theory described as orthodox, in which, according to Professor Robbins, "the condition of stationariness is the resultant of the balance of the forces tending

[1] Schumpeter, "The Instability of Capitalism," ECONOMIC JOURNAL, Sept. 1928.

to change," in which the system rights itself on its own power. Schumpeter holds that the changes are generated by the innovation activity, to which the system of equilibrium, the *Kreislauf*, adjusts itself. His conception differs just as fundamentally from the Clarkian, " in which the factors of production are held stationary by hypothesis and equilibrium is attained within these conditions," since in his static state what is held stationary is not the supply of capital but the demand for it, *i.e.* the power to exercise entrepreneur ability. His theory only resembles Clark's in that he holds that the dynamic forces require special treatment.

That the theory represents an advance on British orthodox theory is an assertion which those who believe orthodox theory to represent an advance on Ricardo must deny, since it is, in essentials, almost identical with Ricardo's teaching, which orthodox theory examined, in part abandoned or explained away, and in part synthesised with the new methods. Although the terminology and background are entirely different, and explicit doctrines play the same part as Ricardo's hints and loose ends, the similarity is unmistakable. Ricardo holds, like Schumpeter, that any economic system works on the law of the static state, *i.e.* that incomes, prices and real costs determine each other; instead of taking the Marxian line of establishing the complete validity of the real costs or labour theory of value by making it more and more abstract, he allows it to exist in the real world " considerably modified." In the famous fourth section he effects a transition from a static state working through the consumer, where real costs determine value, to the state in which capital accumulation and inventions are taking place, in which prices are determined by money costs, and these costs determined by the demand of the entrepreneur (though the whole section is so baffling that it was not unnatural to suppose that he meant simply that whereas labour *costs* determine value in the natural state, labour and capital costs together determine it in the actual existing capitalist system). Schumpeter, holding that the utility theory of value is no more valid than the labour theory of value to explain the determination of values in a capitalist economy,[1] can say no more than that it too is " considerably modified " in that economy.[2]

[1] He does not, in the 1926 edition of the *Theorie*, explicitly assert that the utility principle is no better as a value theory than the labour theory of value, but the conclusion follows inevitably from his whole argument, as he has since recognised. Cf. Conrad, "Der Zusammenbruch der Grenznutzentheorie," in *Jahrbuch für Nationalökonomie und Statistik*, Oct. 1928.

[2] But Ricardo has implicitly a definite view as to the connection of the two.

But it is by now fairly generally admitted that the attempt to explain the capitalist system on a single principle hardly succeeded. Unable to realise the significance of the labour theory of value or the treatment of profits as a dynamic income, British theorists after Ricardo had produced special or eclectic theories about interest and profits, without realising that they were impairing the validity of whatever general law of value they favoured. Orthodox theory took the same line: once the classical theory of cost of production (taken to mean real cost) determining value had been related to the new marginal utility theory and the same law had been shown to determine the value of commodities and the value of the factors of production, there should have been no room for a special theory of distribution at all. Yet that the special theory of distribution—the doctrine of the principle of substitution working through the entrepreneur—was retained, really proves that the new theory could not force the dynamic element into the static frame. By admitting that the value of the factors of production depended on their utility to the entrepreneur's income, not on their power to satisfy the wants of the consumer, it really admitted the utility principle to be as powerless as the labour theory of value to express the mutual determination of prices and wages in a capitalist system. The utility principle was only an advance in that it could account for the value of commodities not reproducible by labour, and therefore for the infinite value of the services of the entrepreneur;

Marx, owing to his confusion about the place of the labour theory, could never make his dynamic theory anything but a theory for the individual firm; he could prove that a single undertaking may progress by paying lower wages, but could not extend that argument to the whole economy. Ricardo made the connection, not by promulgating a theory of dynamic relations, but by proving that a capitalist society, suddenly frozen at its level of achievement by ruling out invention, that is, without the independent variable of entrepreneur activity, would be impoverished by the working of economic laws. Supposing the quantity of money invariable and the price level fixed, profits cannot rise or fall without a rise or fall in prices, because profits are a surplus out of which wages are paid. If the prices of agricultural products rise owing to the scarcity of land, prices of manufactured goods must fall, since wages are cost of subsistence, which rises owing to the rise in the prices of agricultural products, and profits must fall. This is the reverse side of Schumpeter's doctrine, that profits are a dynamic income and that no advance is possible without credit creation. Ricardo avoids the difficulty of connecting dynamic and static tendencies by giving the argument a negative form. He has, of course, no explicit doctrine of the nature of entrepreneur activity, but the belief that inventions take place fortuitously *in vacuo*, slight though it appears, plays exactly the same part and is just as intelligible as Schumpeter's developed doctrine of the nature of entrepreneur activity. Ricardo can see no reason why inventions should continue, nor can Schumpeter see why the entrepreneur spirit should not be transmuted into the semi-scientific, semi-political spirit of the directors of large combines.

it simply provided the way for its own breakdown as a general law of value.

Schumpeter's theory is an advance in that it represents a much clearer consciousness of the value and limitations of the conceptions it utilises; it shows that the weakness lay, not in the orthodox system's incompleteness, but in its attempt to force dynamic elements into the static mould. The distinction could not be dispensed with altogether; it had to be disguised as the distinction between long-run and short-run effects, not an effective substitute, since the tendencies differ in nature and not merely in the period of their operation. Made in that way, the distinction does suggest that in the long run we are all dead, not that we never live in it at all. It ignores forces working against—not merely round—the tendency to equilibrium; it obscures the real nature of economic laws as effectively as Marx did, for it analyses the existing economic system as if all incomes were capable of discussion in terms of productivity.

In consequence the Schumpeter theory is not obliged to create a special problem out of the trade cycle, as orthodox theory was. The trade cycle problem, for any economic theory which holds that a general law of value, *i.e.* the equilibrium tendency determines the working of the capitalist system, arises because it is impossible under those conditions to infer *cumulative* dynamic movements.[1] Hence some special theory has to be erected, after the selection of certain types of friction for special emphasis, and the assumption of an unstable business situation, to explain how a given exogenous disturbance can act cumulatively until return to equilibrium is only possible by violent change. If the situation itself contained no dynamic tendency, the exogenous disturbance would cause mere adjustment. Orthodox theory could make no connection between its general principles and the trade cycle, except by the now discredited doctrine of the "real" rate of interest. The existence of a special theory admitted that the essence of the capitalist system must be treated as an aberration of economic laws.

Schumpeter's theory, on the other hand, acts as a solvent—not a solution—of the trade cycle problem. It asserts simply that the cycle is the result of the way in which the two activities, innovation and adaptation, act upon each other. In the existing economic system disturbing forces are at work, which, owing to

[1] Löwe, *Weltwirtschaftliches Archiv*, 1925. "Wie ist die Konjunkturtheorie überhaupt möglich?" Mises, *Geldwertstablisierung und Konjunkturpolitik*, 1928, and Löwe, "Der Stand der Konjunkturforschung," in *Festgabe für Brentano.*

the operation of the credit mechanism, act cumulatively and do not cancel each other out until the equilibrium tendencies assert themselves through an increase in the tax on innovation, checks them and permits a new equilibrium to emerge. It is, owing to the very nature of the system, impossible to foresee when this point will come; the periodicity of the cycle is, in his opinion, not regular enough to require explanation. Further, again owing to the very nature of the system, it is impossible to say how much fluctuation is desirable, for the theory can have no standard of optimum progress. (For instance, the standard used by Mr. Robertson—the fluctuation of frictionless barter—is not available because the whole theory rests on the doctrine that the state of frictionless barter is a state without capital.) Since it can draw no line between the interests of the entrepreneur and the general interest, it must conclude (with Ricardo) that the exercise of entrepreneur activity is as likely to diminish the national dividend as to increase it. It cannot advocate any stabilisation policy on the part of the banks or industrial combines. The demand that a cycle theory should provide a solution rests, in Schumpeter's view, on a misunderstanding of the nature of the capitalist system and the relation of economic theory to it; cycle theorising must not be the last chapter in an economic system, but a study of the interdependence of all movements, of the connection of all determinable quantitative factors, that is, the mutual determination of incomes, costs and prices—as affected by the independent variable, entrepreneur activity.

DOREEN WARRINER

SPENDING THE NATIONAL INCOME

EVERYONE is familiar with the work of Sir Josiah Stamp and Dr. Bowley on the National Income. They have provided from time to time an estimate of the sum-total of the annual money incomes of the people, together with an analysis of the distribution of income amongst various classes. It has appeared for some time to the present writer that it would be both interesting and useful if an analysis could be made of the manner in which the money is spent, showing the amounts absorbed by the main heads of expenditure and arriving at approximately the same total figure. Thus we should have an income and expenditure account which balanced.

To frame such an account with great accuracy is obviously impossible. We have to deal with the final consumer, who makes his purchases principally in retail shops. Scarcely any statistics exist of retail sales, either by quantity or value, and if we make use of wholesale quantities we are faced, when the goods appear in the shops, with a great variety of different cuts and qualities and with considerable variation of retail prices in different areas. Nevertheless, an attempt has been made in the tables which follow to give some idea of the relationship between the main items of expenditure, without pretending to great accuracy. The figures relate to the period from 1924 to 1927, because the only available statistics of wholesale production relate to that period, and it is upon these that we must chiefly rely.

In the calculations upon which the Ministry of Labour Cost of Living figure is based the expenditure of the standard working-class family is divided into five groups: Food, Rent and Rates, Clothes, Fuel and Light, and Miscellaneous. In analysing the National Expenditure a more elaborate grouping is necessary, because the Miscellaneous category becomes of much more importance when the richer people are included. It has been found convenient to make use of thirteen heads of expenditure: Food; Maintenance of the Home; Clothes; Direct Taxation; Liquor; Smoking; Travel; Entertainments and Sport; Sickness, Accidents and State Insurance; Religion; Reading; Miscellaneous Expenditure; and Saving. We proceed to deal with these in turn.

FOOD

The Ministry of Agriculture published in 1929 a valuable pamphlet giving the estimated quantities produced, imported

into, and retained in the country of the principal articles of food.[1] By averaging the prices quoted for each commodity by a number of retailers, making some allowance for waste, and applying the averages to the wholesale quantities provided by the Ministry of Agriculture, it is possible to get somewhere in the neighbourhood of the accurate figure for each article.

Meat.—The prices used for meat were arrived at by a careful survey of the charges made for the various parts of the carcass, giving due weight to the relative importance of each cut. The total expenditure upon meat arrived at in this way is 60 per cent. more than the Ministry of Agriculture's estimate of the total value. Mr. W. R. Dunlop's investigation into retail profits, the results of which were published in the ECONOMIC JOURNAL for September 1929, indicated that the butcher does not add more than 25 per cent. But the Ministry of Agriculture's values are based, not upon prices in the wholesale markets, but upon what the producer receives, which is very different. On the whole a 60 per cent. addition does not appear unreasonable to cover intermediate costs and profits. The margin of error for each item is probably about 20 per cent. either way. Similar remarks apply to the figures for Dairy Produce.

	Thousand Tons.	Per lb.	Total. £ m.
		s. d.	
Beef and Veal	1,398	1 1½	176
Mutton and Lamb:			
English	227	1 4	34
Imported	287	10	29
Bacon	546	1 0	61
Ham	99	1 10	20
Pork	102	1 5	16
Lard	171	10	16
Rabbits (very approx.)	40	8	2
	Total for Meat		£354 m.

Dairy Produce.

	Quantity.	Price.	Total. £ m.
		s. d.	
Milk	874 m. gals.	2 4 per gal.	102
Butter	6 m. cwts.	1 8 per lb.	55
Margarine	4¾ m. ,,	11 ,, ,,	25
Cheese	3¼ m. ,,	1 4 ,, ,,	28
Cream and Condensed Milk			12
	Total for Dairy Produce		£222 m.

[1] *The Agricultural Output and the Food Supplies of Great Britain.* (H.M. Stationery Office, 1929.)

Fruit.—Owing to the great diversity of kinds, including hard and soft raw fruits, nuts, and dried and preserved fruits, this presents considerable difficulties. It is well known that the price paid by the consumer is much higher than that received by the grower, often being more than twice as much. The Ministry of Agriculture's values are those estimated to have been received by the grower. If we take 100 per cent. as the average addition, we get £108 m. as the total retail value. If we offset the relatively cheap apples, plums, bananas and oranges against the relatively dear nuts and dried fruits, and take 6*d*. per lb. as the average, we get, for the total supply of 39,401,000 cwts., a total retail value of £110 m.

Bread and Flour.—Taking 75 per cent. of the total supply of flour as being made into bread, and adding 10 per cent. to the weight, we get 3,461,000 tons, which, at 2½*d*. per lb., amounted to £81 m.

The balance of the flour, sold at 2½*d*. per lb., was worth £24 m. Total, £105 m.

An allowance is made below for flour sold in cakes, etc.

Potatoes and Vegetables.—Potatoes—3,767,000 tons at 1¼*d*. per lb. amount to £44 m.

The total value of the other vegetables to the grower was £20¼ m. If 1¼*d*. is the correct price for potatoes, the addition is 84 per cent. As for fruit, the addition for vegetables is known to be high. If we take 100 per cent. we get £40 m. Total, £84 m.

Fish.—From retail quotations the average price of fish is taken at 8*d*. per lb., which gives, for 16,400,000 cwts., £61 m. The value to the producer was only £24·8 m., but the addition includes the cost of curing dried fish.

Poultry and Eggs.	£ m.
5,079 m. eggs at 1¾*d*. each . . .	37
Add for dried eggs, etc. . . .	4
	41
1,458,000 cwts. of poultry at 1*s*. 6*d*. per lb.	12
	£53 m.

Sugar.—1,685,000 tons at 3¼*d*. per lb. £51 m.

An allowance is made below for the sugar sold in confectionery.

Tea.—The retained imports of 420 m. lbs. at 1*s*. 10*d*. per lb. give £39 m.

Cocoa.—1 m. cwts. at 1*s*. per lb. £6 m.

Coffee.—325,000 cwts. at 1*s*. 10*d*. per lb. £3 m.

An addition must be made for food sold cooked or prepared, principally as cakes, biscuits, jam and confectionery. For this, 200 per cent. is added to the value of one-half of the sugar, 50 per cent. to the value of one-fourth of the fruit, 100 per cent. to the value of one-half of the flour not used for making bread, 400 per cent. to the value of one-half of the cocoa, 50 per cent. to the value of three-fourths of the ham, and various minor amounts in other cases, making in all £75 m. These proportions have been checked as far as possible against the Census of Production returns. Then 10 per cent. of the food is taken as being served in restaurants and hotels, and 50 per cent. of the value of this is added for cooking and service, say £54 m.

Thus the total for food is arrived at as follows:

	£ m.
Meat	354
Dairy Produce	222
Fruit	110
Bread and Flour	105
Potatoes and Vegetables	84
Fish	61
Poultry and Eggs	53
Sugar	51
Tea	39
Cocoa	6
Coffee	3
Add for preparation before retailing . .	75
Add for service in restaurants, etc. . .	54
Total . .	£1.217 m.

MAINTENANCE OF THE HOME

According to the Inland Revenue returns the annual value of inhabited houses in 1913 was about £126½ m. If 30 per cent. is added for the average increase under the Rent Act, and 7 per cent. of the total for the increase in the number of houses, we obtain £176 m. If 25 per cent. of the pre-war houses were by now decontrolled, about 125 per cent., or £40 m., must be added to the pre-war value of these. Add also for mortgage interest in excess of letting value, £5 m., and for the additional rental of sub-let houses, £10 m., and we arrive at £231 m., as the total rent, including repairs but without rates. If the rates upon inhabited houses bore the same relationship to total rates (see the Ministry of Health Reports) as the estimated value of the

houses bore to the gross income under Income Tax Schedule A, then the rates amounted to £73 m.

Total for Rent, Rates and Repairs . . £304 m.

Coal.—Domestic consumption was given by the Royal Commission on the Coal Industry (1925) as 34 m. tons. If the average price throughout the country was £2 per ton the total expenditure was £68 m.

Gas.—The Board of Trade annual returns relating to the gas industry show sales of 282 m. thousand cubic feet. A memorandum of the National Gas Council[1] suggests that about 15 per cent. is used industrially. If we take 10 per cent. of the balance to be consumed in offices and shops, domestic consumption amounted to 216 m. At 5*s*. per thousand, including fittings, this was worth £54 m.

Electricity.—The Ministry of Transport Committee on the Supply of Electrical Energy (1926) estimated the total sales at £34¼ m., of which about 40 per cent. was used domestically, *i.e.*, £13 m.

Candles, Paraffin, Wood and Matches may be taken at approximately £5 m.

To the above may be added for soap, soda and other cleaning requisites, replacement of crockery, cooking utensils and household linen, and repairs to furniture, for each of 10 m. families an average of 2*s*. 6*d*. per week, or a total of £65 m. Wireless licences and upkeep of 2 m. sets amounted to about £4 m.

Total for Maintenance of the Home . . £513 m.

CLOTHES

The returns of the last Census of Production form the basis for this. For tailoring, dressmaking, mantle and costume-making, millinery, and the manufacture of skirts, blouses, corsets and other garments we have a wholesale output valued at £122½ m. The question is how much the retailer adds. A few inquiries suggest that some work upon a percentage as low as 33, while others add as much as 75. When one realises the great variety of conditions under which these goods are sold, it is impossible to suggest any figure with confidence, and 50 per cent. is taken as a round middle figure. It is confirmed to some extent in Mr. Dunlop's essay mentioned above.

[1] Appended to the Second Report of the National Fuel and Power Committee, 1929 (Cmd. 3252).

For the other principal items of clothing the Census gives us the average wholesale value, and comparison with average retail prices gives us some notion of the percentage to add to the total wholesale value. In this way the remaining estimates have been made.

	£ m.	£ m.
Tailoring, Dressmaking, etc. . .	184	
Add for home and private making	20	
		204
Boots and Shoes, £49 m. plus 50 per cent.	74	
Add for repairs, 20 per cent. . .	15	
		89
Hosiery, £40 m. plus 100 per cent.		80
Hats, £13 m. plus 150 per cent.		33
Umbrellas and Sticks, £2½ m. plus 100 per cent. .		5
Gloves (Leather), £2¼ m. plus 75 per cent. . .		4
Laundry, Cleaning, and Dyeing where not done at home. (Census figure)		21
Total for Clothes . .		£436 m.

DIRECT TAXATION

Indirect taxation is included in the totals of the other heads in the following manner, so far as can be estimated.

	£ m.
Food	26
Liquor	136
Smoking	57
Entertainments and Sport . .	6
Diffused throughout the whole . .	171
Total . .	£396 m.

Direct taxation paid out of income amounted to £375 m.

LIQUOR

The estimates of the United Kingdom Temperance Alliance, which are reliable, averaged for this period £308 m.

TRAVEL

Public Vehicles.—Railway passenger traffic, as shown by the returns of the companies, amounted to £80 m. If we may take

10 per cent. of this as being chargeable to the business expenses of other concerns, then £72 m. was left to be paid out of income.

London and provincial local tram, underground and omnibus services may be estimated, from their traffic returns, to have received £50 m. Motor coach services probably brought the total for public vehicles other than railways up to about £70 m.

Private Motor-Cars.—There were $1\frac{3}{4}$ m. vehicles paying Road Fund duty, of which about three-fourths were privately owned. The average price appears from production returns to have been about £200, making a total of £266 m. as the value when new of the privately owned vehicles. If we write this off in six years, the annual expenditure was £44 m. And if one-quarter of this expenditure was chargeable to the business expenses of the owners, £33 m. was left to be charged to income.

Upon the above assumptions the whole use of 1 m. vehicles was chargeable to income, and we must therefore add :

	£ m.
Tax on 1 m. vehicles . . .	12
Insurance	10
Garage at 5*s.* per week . . .	13
Petrol for 8,000 miles at 30 miles per gal. and at 1*s.* 6*d.* per gal. . .	20
Repairs, tyres and oil . . .	10
	65

This makes the total for Private Cars £98 m., and the total for Inland Travel £240 m.

Smoking

The Census of Production gives the retained output of tobacco, cigarettes, etc. as worth £88 m., including duty. The retail addition is low, probably not more than 25 per cent., which gives us £110 m. Adding the value of 80 per cent. of the matches used, as shown in the revenue returns, we get a total of £116 m.

Entertainments and Sport

Taking seven times the yield of the Entertainments Tax in 1923–4, before the duty was abolished on the cheapest seats, we get £65 m. as the amount paid for admission to all forms of amusement.

Tennis, Cricket, Football and Golf.—If we suppose that 2 m. people play and the average annual cost of equipment and club subscription is £5, we get a total of £10 m.

Racing.—The Select Committee on the Betting Duty, 1923, estimated the gross profits of bookmakers, including street bookmakers, at £5½ m. The cost of training and racing 5,000 horses, less the amounts won in prize-money as shown in the racing handbooks may be estimated at £2 m.

If we add £2½ m. for the minor sports of shooting, yachting, hunting and fishing, we arrive at a total for Entertainments and Sport of £85 m.

Sickness, Accidents and State Insurance

Voluntary Hospitals had an income in 1927, apart from legacies, of £10 m.[1]

Doctors' and Dentists' Fees.—This is a difficult item, but if we take the average gross receipts of the 50,000 doctors and dentists in practice at £800 a year, we obtain, deducting receipts from the State for panel patients as shown in the Ministry of Health Reports, about £25 m.

Drugs.—The Census of Production gives the output as £14 m. The average retail addition according to Mr. Dunlop is 50 per cent., which makes a total of £21 m.

Health Insurance.—The employees' contributions amounted to about £11 m.

Unemployment Insurance.—The employees' contributions amounted to £16 m.

Total for Sickness, Accidents and State Insurance . . £83 m.

Religion

The endowment income of the Established Churches of England and Scotland is given in the official year books as £8¾ m. in 1925. In England voluntary offerings collected by the Church amounted to nearly £11 m., including offerings for the restoration of buildings. The total receipts of these two Churches may be taken at £24 m. The endowment income of other denominations is small, but if offertory receipts were in proportion to the number of churches and chapels, their income amounted to about £18 m., making £42 m. in all.

[1] Burdett's *Hospitals and Charities*, 1929.

Reading

Newspapers and Periodicals.—The Census of Production gave the value of the output as £50 m., of which about one-half to two-thirds, or, say, £30 m., may be taken as having been paid by advertisers.[1] To the balance must be added 50 per cent. for retail selling cost, making in all £30 m. from sales. This is an average of 1*s*. 2*d*. per family per week, which seems about correct.

Books.—About 14,000 new books were produced per annum. If an average of 1,000 copies each were sold at 7*s*. 6*d*. the total was £5 m. This leaves out cheap editions, works of reference, etc. The Census of Production gave the total value of the production of printed and manuscript books as £6 m. If 25 per cent. is added for selling cost the figure becomes £7½ m., and the total for Reading, £37½ m.

Miscellaneous

Under this head must be grouped the following relatively small items, rough figures for which, where any estimate can be made, are given in brackets: subscriptions to trade unions, friendly societies and pension funds (£20 m.); domestic servants (£10 m.); flowers and amateur gardening (£10 m.); burial expenses (£8 m.); education, other than at free schools (£10 m.); jewellery, hairdressing and cosmetics (£10 m.); private letters, parcels, telegrams and telephones; photography, amateur and professional; foreign travel for pleasure; holiday expenditure not elsewhere included, for example, at fairs, on piers, and for bathing, boating, sight-seeing and pleasure trips; private charity; research; gramophones and records; children's toys; fancy goods; and the maintenance of domestic animals. In addition there is the income of clubs and other institutions maintained by endowments and donations, apart from churches and hospitals. On the whole it seems likely that the total of the Miscellaneous group was about £150 m.

Saving

The total income as estimated by Sir Josiah Stamp and Dr. Bowley was £4.188 m.[2] The total of the above items is £3,602½ m. This leaves a balance of £585½ m. Nothing has been allowed so far for the purchase or building of new houses or the purchase of furniture.

[1] See an article on "The Contemporary British Press" in the *Economist*, November 17, 1928.

[2] *The National Income*, 1924 (Oxford, 1927).

If we take 100,000 houses at an average of £800 each, we obtain a total of £80 m. The value of the new furniture may be taken at one-fifth of this figure, that is to say, £16 m., making £96 m. in all. The major portion of this expenditure will have come out of the savings of previous years and will have been replaced by the savings of persons other than the purchasers. In addition, according to the *Economist*, the average annual amount of new capital issues in the period was £256 m., and there will also have been some extension of private businesses out of income. Perhaps, therefore, we may take the total saving at the round figure of £400 m.

This leaves £185½ m. unaccounted for, or 4·4 per cent. of the total—a small margin in view of the necessarily approximate nature of the figures.

The final table is as follows:—

ANALYSIS OF THE AVERAGE ANNUAL NATIONAL EXPENDITURE, 1924–27.

	£ m.
Food	1,217
Maintenance of the Home	513
Clothes	436
Direct Taxation	375
Liquor	308
Travel	240
Smoking	116
Entertainments and Sport	85
Sickness, Accidents and State Insurance	83
Religion	42
Reading	37½
Miscellaneous	150
Saving, including new Houses and Furniture (£96 m.)	400
Balance unaccounted for	185½
Total	£4,188 m.

A. E. FEAVEARYEAR

RECENT CHANGES IN THE LONDON GOLD MARKET

THE war and its consequences have affected London's position as an international banking centre to no slight extent. Her position as the world's principal open market of gold and the principal distributing centre for newly-produced gold has also undergone a certain modification, and the trend of development points towards further changes, to the detriment of the London market. The tendency is the result of the operation of three factors, viz. the practice of direct shipments of South African gold, the practice of forward buying of South African gold, and the proposed establishment of an international gold clearing system by the Bank for International Settlements. The first two are already in operation, and tend to become increasingly popular; they deserve attention because of their repercussion on monetary policy. The third factor is still in its initial stage, and its effect upon the London market is yet to be ascertained.

During the last few years the major part of India's gold requirements was met by means of direct shipments via Durban. The cost of shipment from Durban to India is a shade over $\frac{1}{2}d.$ per oz., which compares favourably with the expenses of shipment from Cape Town to London and from London to India. During 1926 to 1928, considerable direct shipments were also made from South Africa to South America, especially to the Argentine and Brazil; owing to the unfavourable conditions in South America, this movement has stopped, but it seems probable that it will be resumed when the tide turns again in favour of the import of gold by that continent.

All these arrangements have diverted so far only a minor part of the South African gold output from the London market. Certain arrangements are, however, under consideration which, if successful, may deprive London of the physical handling of the bulk of the South African gold. It is proposed to establish a regular air service between Cape Town and Cairo in the course of 1931, which would undertake the transport of gold from the Rand Refinery to a special gold depot to be created in Cairo. According to the scheme, the distribution of Cape gold would in future take place in Cairo; the gold dispatched for India would be forwarded by air to its destination, while gold bought for Paris,

Berlin and other continental centres would be forwarded direct to those centres. Although the gold would continue to be bought and sold in London, only the amounts bought by the Bank of England and the home trade would actually be shipped to London.

The significance of the change should not be under-estimated. It is true that the amount of labour employed in the physical handling of gold in London is negligible, and the possible loss of shipping freight between Cairo and continental centres is hardly worth mentioning. The question has, however, another aspect. So long as the gold is actually brought to London before it is sold, the Bank of England is at an advantage as compared with other potential buyers, for, in acquiring the gold, the latter have to pay the cost of transport, etc. from London to their centre, while the Bank of England obtains delivery free of charge. Thus, so long as sterling is at par, the chances are that the gold will find its way into the Bank of England. Even if sterling is at a slight discount, foreign buyers may be unable to compete with the Bank, especially if the latter is prepared to pay a price exceeding its official buying price, as was the case on several occasions during the last few years. In fact, if the Bank bids 84*s.* 11⅜*d.*—which is the maximum it can pay for gold, its own selling price being 84*s.* 11·45455*d.*—it will secure the gold so long as sterling is slightly above gold export point. Thanks to this advantage, the gold stock of the Bank is in normal conditions replenished out of the newly-produced Rand gold, so that there is no need for raising the exchange by means of high interest rates above gold import point to that end.

This advantage would disappear if the practice of direct gold shipments were to be generally adopted as a result of the establishment of a gold-distributing centre in Cairo. If the gold is sold while in Cairo, foreign would-be buyers could compete with the Bank of England on an equal footing; in fact, as it is more expensive to forward the gold from Cairo to London than to Paris, Rome and a number of other centres, the Bank of England would be actually at a disadvantage against those who want to buy the gold for shipment to those centres; it would not be in a position to buy new gold unless sterling is at a premium—sufficiently wide to offset the difference in the cost of transport—against a number of continental exchanges. Consequently, the Bank of England would have to maintain higher rates of interests in London, in order to avoid a depletion of its gold stock, than would be the case if the South African gold were to continue to be brought to London. In this respect, the fact that the gold, though physically absent,

would continue to be dealt with in the London market would make no difference.

It would be desirable, therefore, to prevent a change in the system of transport of South African gold, if necessary by means of some form of subsidy to the shipping company at present engaged in the shipment. So long as the gold is shipped along the West Coast of Africa, London will remain its natural geographical centre for its physical distribution. Even if the gold is bought forward for shipment to another centre it has to be shipped via London. Possibly the shipping company will be able to compete with the air line even without any special subsidy, especially during periods of low interest rates when the importance of the time factor is comparatively small, and the saving of about ten days' interest can easily be counteracted by quoting lower freight rates. In a freight-rate cutting contest, the shipping company has the advantage of being able to transport gold with very little additional cost and trouble. Insurance premiums for air transport are likely to be heavy, for, in case of accidents, it will often be impossible to locate the wrecked aeroplanes. In any case no change can take place this year, as the agreement between the gold producers and the shipping company will not expire until the end of 1931.

The adoption of the practice of forward buying of gold constitutes also a threat to London's position. While direct shipments are still the exception and shipments via London the rule, for some time past the forward sale of South African gold on foreign account has become the rule: although the gold thus bought continues to be brought to London, by the time it reaches this market it is no longer available. Thus, the disadvantages attached to direct shipments, from the point of view of the replenishment of the Bank of England's gold reserves, holds good, in certain circumstances, also as regards the shipment of gold bought forward on foreign account. It is true that, as a rule, it is not profitable to buy South African gold forward unless sterling is under gold export point; the practice was, until comparatively recently, unknown, and has been adopted as a result of the depreciation of sterling in relation to the franc below its normal gold export point during the second half of 1930, brought about by the refusal of the Bank of France to accept bar gold of a fineness inferior to 0·995. The reason why the major part of South African gold output during the second half of 1930 was bought forward on French account the moment it left the Rand Refinery was that sterling was all the time at a rate at which it

would have been in any case impossible for the Bank of England to acquire the gold either by forward purchases or after its arrival in London.

A situation may, however, arise—and has, in fact, arisen—in which the possibility of buying gold forward on foreign account tends to diminish the chances of the Bank of England to acquire the gold. This is the case when spot sterling is slightly above gold export point while forward sterling for three weeks is under gold export point. It is obviously an abnormal state of affairs. It is true that whenever spot sterling approaches gold export point, interest rates in London tend to rise above those prevailing in foreign centres, and consequently forward sterling tends to go to a discount in relation to spot sterling; at the same time, however, the fact that the spot rate has reached gold export point and that the forward rate is actually under gold export point stimulates speculative buying of sterling, both spot and forward, that, in normal conditions, the decline of the forward rate below gold export point is merely a temporary phenomenon. There are, however, three possible factors which may interfere with the operation of this rule:

(1) If the market considers it possible that the free flow of gold between two centres may be handicapped in the near future, then the forward exchange rate may remain under gold export point for a prolonged period.

(2) If interest rates in the centre whose spot exchange rate is at gold export point are persistently higher than the rates prevailing in other centres, then the forward rate is likely to remain under gold export point so long as the spot rate is at, or slightly above, gold export point.

(3) If there is a persistent pressure upon the exchange as a result of an outflow of capital, then the spot rate may remain in the vicinity of gold export point for a prolonged period, and the technical position of the market may result in from time to time a depreciation of the forward rate below gold export point.

The case of the reichsmark provides a clear example of the operation of these three factors. Although gold standard is safely established in Germany, there has been some doubt in the minds of many people whether the Reichsbank would always be in a position to allow a free outflow of gold. For this reason, the extent to which foreign dealers are prepared to carry an open position in reichsmarks—even if the forward rate is actually under gold export point—is limited. As interest rates in Germany are much higher than abroad, the forward reichsmark always tends to

be at a discount, so that, whenever the spot rate is at gold point, the forward rate is bound to be under gold point. From time to time there is a period of persistent efflux of foreign and German capital from Germany, in which case the spot rate remains in the vicinity of the gold export point, while the forward rate declines below gold export point.

A somewhat similar situation arose also regarding sterling during January 1931. Although the spot rate of the franc rose slightly above gold export point in consequence of the decision of the Bank of France to accept bar gold of standard fineness, the forward rate remained slightly under gold export point for some time. Owing to the fact that for nearly six months sterling was below its normal gold export point in relation to franc, foreign exchange dealers abroad were not altogether satisfied as to the certainty of continuous unhampered flow of gold in case of a fresh decline of the spot rate. For this reason there was not a sufficiently strong demand for forward sterling in spite of the fact that it was quoted under gold export point in relation to the franc. As interest rates in London were considerably higher than in other leading centres, forward sterling tended to remain at a discount in relation to spot sterling, while spot sterling tended to remain in the close vicinity of gold export point, owing to the persistent efflux of funds through the withdrawal of French balances and the export of capital for fear of increased taxation.

In the circumstances it was profitable to buy forward sterling and to cover the exchange risk through buying forward South African gold. This phenomenon may repeat itself frequently, if, as seems possible, the pressure on sterling continues. While in normal conditions higher money rates tend to raise the exchange above gold export point, the withdrawal of French balances and the efflux of capital, which takes place irrespective of considerations of interest rates, may possibly counteract the normal effect of higher money rates, and the spot rate may touch from time to time gold export point. As in the circumstances money rates are likely to remain higher in London than in other centres, forward sterling is likely to be quoted mostly at a discount in relation to spot sterling, so that, whenever the spot rate declines near gold export point, the forward rate will always be quoted under gold export point. On such occasions the Bank of England will be unable to secure any South African gold, as it will be bought forward on foreign account. But for the possibility of buying gold forward, it would stand a good chance of buying the gold on its arrival at its maximum buying price of 84*s*. 11$\frac{3}{8}$*d*., by means of

raising the spot rate slightly above gold export point. So long as, however, it is profitable for foreign buyers to pay 84*s.* 11½*d.* they will outbid the Bank whenever the forward rate is a shade under gold export point. Against this a slight rise of the spot rate is of no avail, as experience shows that on such occasions the discount of the forward rate usually widens in proportion with the rise of the spot rate. In order to be able to secure the South African gold, the Bank would have to bring about a rise of the spot rate considerably above gold export point, which again necessitates higher interest rates in this market. Possibly if the Bank of England were to buy gold forward, as it did on several occasions in the past, and would be prepared to pay for it as soon as the gold leaves the Rand Refinery, it would stand a better chance to secure the gold; though, if the foreign buyers are willing to follow its example and disregard loss of interest, there would be no advantage in the adoption of the practice. Nothing but a policy aiming at higher money rates in London could secure the newly-produced gold for the Bank of England. Thus, as in the case of direct gold shipments from South Africa to foreign centres, the change in the practice of the gold market has operated to the disadvantage of London, as it tends to check the process of automatic replenishment of the Bank's gold reserve, and necessitates the maintenance of interest rates in London at a higher level than would otherwise be the case, in order to be able to maintain the gold stock at a given figure.

The adoption of the practice of direct shipments and of forward dealings in gold provides an interesting example how apparently insignificant points of technical detail, hardly noticed by those who are not directly concerned with practical gold arbitrage and exchange dealing, can influence the general situation of the Money Market, and how it may affect the monetary policy of the authorities.

PAUL EINZIG

THE SIGNIFICANCE OF THE RECENT LEGISLATIVE AMENDMENTS CONCERNING THE SOUTH AFRICAN RESERVE BANK

DURING the past sixteen years, commencing with the establishment of the Federal Reserve Banks in the United States, central banks have been set up in a large number and variety of countries—in Chile, Peru, Uruguay, Colombia and several other countries in South and Central America as well as in South Africa, Czecho-Slovakia and China. Moreover, the advisability of setting up a central bank has been discussed on various occasions in India and Australia. In India a Bill providing for the establishment of a central bank was actually introduced into the Indian Legislature in 1928, but owing to strenuous opposition from certain quarters it was withdrawn; and in Australia a Reserve Bank Bill was submitted to the Commonwealth Legislature in 1930, with a fair chance of becoming law in the near future.

Two interesting points emerge from this development. The first is that wherever central banks have been established in the New World, and even in such an old country as China, they are based primarily upon the model of the Federal Reserve Banks of the United States. The second is that the phenomenal rise of central banks since the War seems to be attributable to the growing realisation that under modern conditions of banking and commerce it is a great advantage to any country, irrespective of the stage of economic development, to have centralised cash reserves and the control of currency and credit vested in a bank which has the support of the State and is subject to some form of State control, directly or indirectly.

The central banks which have been set up in South and Central America appear on the whole to have been content merely with seeking to bring about and maintain the stabilisation of the currency and exchange of their respective countries, and even in India the Reserve Bank contemplated in the Bill referred to above was admittedly conceived mainly for the purpose of taking over from the Government the management of the currency and exchange. Like the Federal Reserve Banks of the United States, however, the South African Reserve Bank is not only

expected to do much more, but also aims at achieving more than that.

Although the South African Reserve Bank was organised largely on the basis of the Federal Reserve Banks, various modifications were made, due to fundamental differences in banking and other conditions. For the purpose of this article the points demanding emphasis are, firstly, that from its inception the former was granted substantially wider powers than the latter as regards dealing with the public, and secondly, that it has been found necessary by experience to extend the powers originally conferred upon the South African Reserve Bank. In other words, while they were wider than the powers enjoyed by the Federal Reserve Banks, they were found not to be wide enough under the peculiar circumstances prevailing in South Africa.

Under the original Act the South African Reserve Bank was empowered to accept money on deposit and collect money for individual customers and not merely for banks, and to discount bills of exchange, promissory notes and other commercial paper for any merchant, manufacturer, co-operative society or farmer, or to make loans and advances to them against such bills or other eligible paper as collateral. However, while the Bank was empowered to discount bills or other commercial paper for anybody, they were not to be of a maturity exceeding 90 days, whereas many import and export bills in South Africa are drawn at 120 days' sight, and the latter period is also a not unusual currency for such domestic bills as are created, and it must be borne in mind that there are no bill dealers or brokers in South Africa to carry them until they come within the eligible period. Moreover, while the Bank was allowed to make advances against securities of the South African Government and local authorities, and to invest a sum not exceeding the paid-up capital and reserve in such securities, they were to be of a maturity not exceeding six months in the former case and two years in the latter, whereas under the conditions obtaining in South Africa there are not any large amounts of Government securities available with a maturity of not more than six months or two years.

The Act, of course, imposed no obligation on the South African Reserve Bank to perform for the public any of the functions mentioned above, but the point is that the law was intended to render it possible for the Bank to do so if it was deemed necessary or desirable at any time from the point of view of policy. As a result, however, of the legal restrictions set out in the preceding paragraph, which may be regarded as suitable, highly advisable

or even quite liberal in so far as the central banks of the United States and of most countries in Europe are concerned, the South African Reserve Bank was practically precluded from dealing on any substantial scale with the public (*i.e.* non-banking institutions and individuals) even if it were keen to do so. On the other hand, so far the Bank seems to have been eager to maintain its essential identity as a central bank and not to compete actively for business with the other banks, but to operate first as a bankers' bank and then to do only such other banking business in South Africa as is offered to it entirely on the initiative of merchants and others. In any case, the fact that the South African Reserve Bank, like most other central banks, is prohibited by law from paying interest on any deposits held by it will prevent it from competing with the commercial banks to the extent that they can amongst themselves.

The point, however, was to remove the legal restrictions which made it very difficult for the public to approach the Bank. Accordingly, after much deliberation an Amendment Act was passed this year which gave the South African Reserve Bank wider powers for dealing with the public.

In the first place, the maturity allowed in respect of bills, notes or other commercial paper for discount or purchase was extended from 90 to 120 days. This means that the exporters of wool, maize, hides and skins, fruit, etc., and other merchants or manufacturers who have drawn bills payable in 120 days, can now offer such bills to the Reserve Bank for discount, either because the Reserve Bank quotes a favourable rate or for other reasons; and it also means that the Reserve Bank can attract a substantial proportion of the bills drawn in South Africa for domestic or foreign trade purposes, if it particularly wants to do so at any time on the ground that it would be in the interest of South Africa's economic activity, by fixing its rate of discount at a sufficiently low figure, or it can discourage the offering of such bills at any time by raising the rate of discount. This would be somewhat similar to the acceptance purchases of the Federal Reserve System of the United States, which adopts the seemingly passive attitude of buying from the open market only such bankers' bills as are offered to it by banks, discount corporations and bill dealers on their own initiative, but the volume of such bill offerings is determined, of course, by the buying rates of the System. In fact, in the absence of an open market in South Africa the discounting by the Reserve Bank of bills offered by the public at the Bank's discount rate is the nearest approach to the

open market operations of the Federal Reserve System, the Bank of England and the Reichsbank of Germany.

Secondly, the Reserve Bank was empowered to make loans and advances on current account against securities of the South African Government or local authorities of any currency, and to invest a sum not exceeding its paid-up capital and reserve in Government securities of any currency. With this power to buy or lend on Government securities of any currency the Reserve Bank would not only have a wider field of operations in South Africa, but it could also render a valuable service to insurance and trust companies and similar institutions, which could invest a larger proportion of their funds if they knew they could rely on the Reserve Bank to buy some of their Government securities or make advances to them thereon whenever they ran short of funds.

Thirdly, the Reserve Bank was empowered to make loans and advances against "one-name bills of exchange or promissory notes, secured by documents of title representing staple commodities having extensive and active markets, to an amount not exceeding 75 per cent. of the value of such commodities at current market prices." This provision gives the Reserve Bank a good opportunity of dealing directly with merchants, farmers' co-operative societies or individual farmers, if it is considered desirable to do so. This type of banking business has only been slightly developed in South Africa, since prior to the passing of the Warehouse Act this year it was not possible to obtain a valid security over movables without having actual possession of the goods, except in one Province, namely, Natal. The South African Land Bank, which is a State institution and was authorised under the Agricultural Credits Act of 1926 to lend to farmers and co-operative societies on bills or notes secured by warehouse or elevator receipts, either directly or through the agricultural loan companies allied to it, has not been able to develop this business to any great extent owing to the lack of adequate working capital and the relative inelasticity of its credit structure. The Reserve Bank, however, can now rediscount such bills and notes for the Land Bank and enable it to work on a larger scale.

Fourthly, the Reserve Bank was also empowered to make loans and advances against "such non-speculative dividend or interest-bearing securities having a ready sale on the stock exchange as the Board of the Bank may approve for that purpose from time to time." This is a highly controversial provision and

has naturally aroused a good deal of opposition from certain quarters. In view, however, of the wide powers now enjoyed by the Reserve Bank in other directions, there seems to be little likelihood of this provision ever being used to any great extent.

Arising out of the matters discussed in the foregoing paragraphs, the question which is almost certain to be raised by those who are not well acquainted with the conditions prevailing in South Africa and various other new countries is, "Why has it been found necessary to grant the South African Reserve Bank such wide powers not only for dealing with the public but also with a view to facilitating re-discounts for the commercial banks, even to the extent of empowering it to make loans and advances against selected stock exchange securities?"

The answer is as follows. Firstly, there is a comparatively small supply of commercial paper of any kind ordinarily available in South Africa. The bankers' acceptance and the promissory note are hardly known as a means of obtaining bank credit, and the trade bill is used only to a limited extent. The system of credit on open accounts and overdrafts has always been the principal basis for the financing of domestic commercial transactions in South Africa, the retailer usually extending credit on open accounts to farmers and other clients, and the wholesaler again to the retailer, while merchants and manufacturers generally borrow from the banks on current account, *i.e.* in the form of overdrafts. Some progress has indeed been made in recent years in connection with the use of bills in lieu of open accounts and overdrafts, but on the whole it has been small compared with the amount of publicity that has been given by the Reserve Bank to the relative advantages of bills, due in no small measure to the fact that farming conditions in South Africa are in several respects highly unfavourable for the extensive use of bills, and that this naturally affects also the position of the country store-keepers relative to the wholesale merchants as well as that of the wholesale merchants towards the banks. In consequence of the relatively small supply of bills or other commercial paper in South Africa, the Reserve Bank has naturally been considerably handicapped in the performance of its functions of controlling currency and credit on sound and orthodox lines by having its most important and most natural field of operations as a central bank severely restricted.

Secondly, there are only three commercial banks of any significance in South Africa, two of which together control over 95 per cent. of the ordinary banking business, and these

big banks are in themselves able, through their numerous branches, to level up matters to a large extent by meeting abnormal demands for loans in some parts of the country with the surplus funds in others. This factor in itself would tend to restrict considerably the field of operations for the Reserve Bank as a bankers' bank, in contrast to the conditions in Europe, and especially in the United States, where there are thousands of independent banks, but the position is rendered much worse by the fact that comparatively little use has been made by these banks of the re-discounting facilities offered by the Reserve Bank, partly because they appear to be disinclined to borrow from the Reserve Bank to any extent and thus show reliance or dependence on it, and partly as a result of there having generally been no great need of their doing so. In other words, they have not yet come to adapt their method of working to the existence of a Reserve Bank in their midst, *i.e.* working on a smaller margin of cash reserves and borrowing from the Reserve Bank for short periods at a time at the end of every month to meet the monthly pay-rolls and month-end settlements, and somewhat more at the end of every half-yearly period and in the Christmas or other busy seasons. At present they are indeed required by law to keep on deposit with the Reserve Bank such of their cash reserves as amount to 10 per cent. of their demand liabilities in South Africa and 3 per cent. of their time liabilities, but they still carry sufficient till money (notes, gold sovereigns and token coins) to meet the bulk of their seasonal needs, and consequently they do not have to borrow from the Reserve Bank at such times to any great extent. It has also been said on some occasions that the banks could not risk reducing their cash reserves and depending on re-discounts with the Reserve Bank when they had so little eligible commercial paper and Government securities in their possession, but with the extension of the eligible paper and securities under the Amendment Act of 1930 that argument is no longer valid.

Thirdly, there is no open money market in South Africa as in the principal centres of Europe and the United States, where bills and other commercial paper as well as short-term Government securities are freely bought and sold by banks, dealers, brokers, merchants and others. The three commercial banks referred to above virtually constitute whatever money market there is. This lack of an open money market acts as a serious handicap to the South African Reserve Bank, since it cannot indulge in open market operations as the Bank of England and the Federal Reserve Banks of the United States regularly do.

This condition exists in varying degrees in all new countries, except the United States, and even in many of the older countries of Europe and Asia, but in discussions and books on central banking very little attention has so far been given to the effects of such a condition on the operations and policy of central banks in the countries concerned. This phase of central banking deserves much more consideration than it has received in the past, especially as there appears to be great need of closer co-operation amongst all the central banks of the world.

The foregoing will be sufficient to indicate the reasons why the South African Reserve Bank should be granted wider powers generally than the Federal Reserve Banks of the United States. They also serve to emphasise another point, which is now rapidly gaining in importance and recognition, namely, that if, owing to peculiar local conditions, the central bank of any country cannot possibly attain its maximum efficiency by operating as an orthodox central bank on the lines of the older central banks of Europe and the Federal Reserve Banks of the United States, then the powers, functions and operations of that central bank should be adapted as far as possible to the economic and banking environment of the country concerned, and the economic and banking environment in turn should be rendered as favourable as possible to the proper functioning of the central bank.

The extent to which this process of adaptation can be carried out in a new country with success and without undue friction will be an important development in central banking in the future and will probably determine the extent to which central banks will be established in the New World. So far South Africa has been the only country in the British Empire (outside of Great Britain herself) with a central bank. Australia may establish one in the near future on the lines of the South African Reserve Bank. The attitude of Sir George Schuster, the new Finance Member of the Indian Government, that the matter of setting up a central bank in India should not be hurried, since "if a central bank was to be well designed to meet the practical requirements of a country it must be adapted to the banking organisation of the country on which it should rest," bears out the above contention.

South Africa has been given the first opportunity of working out such a scheme in practice and may reasonably be expected to assume the responsibility in full consciousness of the importance attached thereto.

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REVIEWS

Unemployment: a Problem of Industry (*1909* and *1930*). By SIR WILLIAM BEVERIDGE, K.C.B., etc., Director of the London School of Economics and Political Science. (London: Longmans, Green & Co. Pp. xxvi + 514. 21*s*.)

THE disabilities imposed on teachers and students by the long absence from our shops and shelves of Beveridge's *Unemployment* have at length been terminated; and it was worth waiting. For the multifarious labours which have denied to the author the opportunities of an earlier recension have at least had this advantage —that the new book has been finished off and presented to the world at a moment when the great slump and the final disintegration of the Insurance Scheme have combined to raise the problems both of the diagnosis and of the treatment of Unemployment to a maximum of interest and urgency. And for the form of the volume (an almost verbatim reprint of the book of 1909, with another book of two-thirds of the length superadded), there is this, if there were no other, supreme justification. There are a few books (*The Wealth of Nations* and *Lombard Street* leap to the mind) which have not only recorded economic history but made it, and which on that account can never be out of date however much facts and opinions may change, and should therefore be accessible intact to future generations. To this rare class there can be no doubt that the 1909 *Unemployment* belongs. It has been a delight to the present reviewer to renew the impression formed by a beginner twenty years ago, that this was one of the very best possible books on an economic subject—perfect in its balance of abstract analysis with statistical evidence, and of both with practical wisdom, and rightly rewarded by its swift and decisive effects on official policy and on the welfare of thousands.

Not even a Newton can discover the law of gravitation twice, so that *Unemployment 1930* is prevented by the nature of the case from being a path-breaking achievement of the order of *Unemployment 1909*. It is nevertheless a work of very high interest and value, filled to the brim with well-ordered facts and with clear and bold judgments. It falls into two distinct divisions, the strands of which are brought together in a final chapter. In the first Sir William Beveridge traces the history of the policies of 1909 and

discusses their future : in the second he inquires how far the diagnosis on which those policies were founded is adequate to the facts of 1930 and how far it needs supplementing.

Of the two main planks of the 1909 programme, employment exchanges, hampered by the imposition of new and enormous tasks, some of them quite alien to their proper function, by the indifference of employers and by the reluctance of disorganised trades to use them for the purpose of decasualisation, have achieved less than was expected of them. Nevertheless, they have won themselves an indispensable place in the national life, and have a future of unquestioned usefulness before them. But of the other plank, unemployment insurance, the history is distressing and the future dark. "Moving from contract to status, the insurance scheme of 1911 has become a general system of outdoor relief of the able-bodied, administered by a national in place of a local authority, and financed mainly by a tax on employment." The ill effect is felt " not so much in the risk of demoralising recipients of relief, so that they do not look for work, as in the risk of demoralising Governments, employers, and trade unions so that they take less thought for the prevention of unemployment." The time has come to choose definitely between the alternatives of guaranteeing unconditional maintenance to all the genuinely unemployed, and returning to a genuine scheme of insurance, supplemented by measures of relief for those who are unable to qualify for benefit under its terms. Sir William does not pronounce between the two courses, though it is not difficult, I think, to guess on which side his advice would be given. Nor does he enter into the vexed question whether, if we return to insurance, the supplementary relief scheme should be administered by the existing Public Assistance Authority or by some new national body charged with the delicate task of making the lot of the recipient of relief less eligible than that of the recipient of benefit and yet free from the supposed stigma of " recourse to the Poor Law." But instead he makes some ingenious and drastic *suggestions for strengthening the element of insurance* in a revised scheme by tightening the correspondence between premiums and risks. The 1911 principle of refunds to steady workers is to be restored : industries with discreditably large unemployment are to be subjected, at the discretion of the Minister of Labour, to special levies : it is even suggested that individual employers should be made liable for all or part of the benefit paid to workmen dismissed by them, and thus be put under strong pressure to provide continuity of employment.

The feasibility of such suggestions must, I think, be considered in connection with Sir William Beveridge's revised diagnosis of the causes of unemployment, to which I therefore turn. His treatment of the trade cycle is expanded in the direction of endorsing, though with judicious reservations, the "monetary" explanation of Mr. Hawtrey. Some will continue to find the more pessimistic and agnostic vein of the 1909 chapter more to their taste. More significant, I think, is the recognition that changes in the structure of industry, formerly recognised as of potential importance only, have become in post-war Britain an actual major cause of unemployment. How far does this problem of the decaying trade, and the kindred problem of the trade specially hit (like shipbuilding) by cyclical or super-cyclical depression, go towards impairing the feasibility of the suggested applications of the principle of adjustment of burden to risk? It would seem at any rate that the Minister of Labour, when he comes to schedule his exceptional trades, may be faced with a difficult and invidious task in disentangling wickedness from irremediable ill-luck.

But the most striking sections of the 1930 book are undoubtedly those in which Sir William Beveridge marshals facts and figures in support of the proposition that real wages have increased since the war out of proportion to the productivity of the worker, so that for the first time the problem of unemployment has become partly one of chronic maladjustment between the supply of labour and the demand for it at the real wage insisted upon. Boldly and forcibly he proclaims the unescapable inferences—that those who are holding up wages at the expense of the unemployment of their fellows are bound in honour "not simply to avoid opposing improvements of industrial technique and organisation, but to further such improvements in every way within their power," and that "at the very least, for some time to come there should be no further general rises in wages." The present reviewer would not have questioned either the demonstration or the second inference had he not read in *The Listener* of January 14 a categorical statement by Mr. J. M. Keynes that our output per head has probably increased by 10 per cent. since 1924 and by 20 per cent. since just before the war—a conclusion in flat contradiction to those results of Dr. Bowley's on which Sir William is chiefly relying. It is curious to recall that in a similar disagreement a few years ago, Mr. Keynes was the pessimist and Sir William Beveridge the optimist; now the rôles appear to be reversed. It is most urgently to be desired that so great a disagreement between such experts on a matter of such first-rate moment should be debated

in full. Meanwhile Dr. Bowley's estimates and Sir William's inferences would seem to hold the field: save only that I take leave to doubt whether the latter, in his picture of the prospects of Britain, has attached due weight to the striking change in our favour in the terms of trade which has taken place since the war. For if we are coming to need fewer exports, the difficulties of our export trades must not be too readily taken as evidence that we are aiming at too high a standard of life in other departments, but rather as evidence of the increased importance of Sir William Beveridge's old remedies of mobility and organisation.

Anyway, these chapters are, as I have said, the most significant in the 1930 book—unless we reserve that epithet for a chapter that is not there—the chapter on Rationalisation and Unemployment. For Sir William Beveridge, less confident of the future in some respects, has not swerved from his old optimism in this. One trade, he concedes, may rise and another decay; and the swifter the flux the greater the need for organisation of the labour market. But he has not qualified at all his 1909 rejection of the suggestion that "increased wealth and productivity per head do not necessarily mean increased opportunities for employment. They may simply be a testimony to the success of the dominant partner—capital—in economising labour and so rendering large parts of the population superfluous." I think it is fair to say that there is a difference of emphasis between Sir William Beveridge and some other high authorities concerning this matter of the *general* displacement of labour by technical progress. "It is difficult," writes Mr. H. B. Butler of the I.L.O. "to resist the conclusion that the aggregate of unemployment would be far smaller to-day if technical improvements, both in industry and agriculture, had proceeded at a less rapid rate." I venture to plead that *Unemployment 1940* may contain an extra chapter, directing our thoughts towards what may turn out in the long run to be *the* problem of Unemployment—the problem of groping our way towards the conversion of the old bad expedient of under-employment into the new good remedy of redistribution of leisure.

D. H. ROBERTSON

Rationalisation and Unemployment: an Economic Dilemma. By J. A. HOBSON. (London: George Allen and Unwin, Ltd. 1930. Pp. 126. 3*s.* 6*d.* net.)

THE relations of Rationalisation and Unemployment raise many problems, and in this short book Mr. Hobson is specially concerned with the effects of rationalisation in aggravating or

increasing efficiency, means real advance in the capital equipment of the country, and that over-emphasis on the savings of material capital has produced a one-sided development as between plant and labour, which has rendered the ultimate efficiency of industry less than it could and ought to have been. N. B. DEARLE

New Survey of London Life and Labour. Vol. I. (P. S. King & Son. Pp. 438. 17*s.* 6*d.*)

IN the memoir of Charles Booth, written soon after his death, we are told that he was not regarded by his family when a boy as "one of the clever ones." Later in life he came to ponder over social problems and, perhaps because he was not "clever," his thought paused when that of others rushed on to glib generalisations and facile theories. He was impressed by the fact that next to nothing was known about the life and labour of those whose lot was to be bettered by reforms based on abstract theory. So he set to work on his great task, and forty years later it is being repeated —fortunately with the help of some who when young assisted him.

Charles Booth's great Survey immensely widened the outlook and deeply touched the conscience of his generation. The effect has been lasting, and it has never since been possible to forget that the poor are with us. His work did far more than spread the knowledge of facts that were known but not appreciated. It was a vast essay in research completely carried through. The new venture is an attempt to do as much for another generation of Londoners. It may be added that the value of social surveys has now become so widely appreciated that some half-dozen have been completed since the war or are in progress in various parts of the country. They differ in scope. The least ambitious aim at little more than the assembly and orderly presentation of facts now scattered in hundreds of reports unknown to the public. Surveys of the latter kind might well be made for every city or district. It is not likely that the ordinary citizen will ever grasp national problems unless he first understands those of his own neighbourhood, and towards such an understanding the local survey is an almost indispensable guide.

This volume, number one of a lengthy series, assumes a form which at first sight is surprising. We might have expected a mapping out of the ground and perhaps a setting off on the journey, promising at some future date a reward for the fatigues of the expedition. What we get is a summary of conclusions regarding the chief aspects of London life and of the outstanding changes in forty years. The explanation is that, since the day of Charles

Booth, there has been a vast increase in the statistical material ready to hand, of which this volume is mainly an analysis. The research now in progress will amplify and extend our knowledge, but the broad aspects of the picture can be sketched in straight away. The sketch has been made in thirteen chapters, of which twelve are devoted to summarising various aspects of London life, while the introductory chapter by Sir Hubert Llewellyn Smith takes the shape of a summary of summaries.

Sir Hubert's opening chapter is admirably balanced and most attractively written. What an encouraging story he has to tell, and how refreshing it is to read in these days! Improvement all along the line. And the improvement is not to be found only in the years before the war. Indeed the greatest changes for the better seem to have taken place since the war. Industries may decay but men apparently do not. It is most interesting to note how well the social services come out from the scrutiny of those best qualified to assess their influence in particular fields. But perhaps the new attitude towards the Poor Law can hardly be reckoned among the improvements. "Large numbers of people," we are told, "have come to regard the Poor Law as one social service among many, which specialises in certain more personal domestic benefits, and appears to them no less honourable than the various health, education and insurance services."

This volume, and in particular Sir Hubert's introduction, has already been so widely reviewed and so fully quoted that it would be tedious again to attempt to pick out the more arresting conclusions. That during the forty years "the average 'real' remuneration of labour has increased by over a third," that one hour of unskilled labour "is now worth about half as much again as in 1890 measured in terms of the necessary commodities which it commands," that the average expenditure on tobacco "must be four times as great as in 1890," and many other similar findings are already well known. It may be more profitable to turn to other less familiar topics.

Some pages of the introductory chapter are devoted to the problem whether the element of the London population which is economically, physically or mentally "subnormal" has diminished or increased. It would appear that there are two quite distinct kinds of person here classed together as "subnormal," and that for the sake of clarity it would be preferable to keep them separate. There are those whose ways of living are subnormal though the persons concerned may not be so. There are those whose intelligence is subnormal whatever their ways of

living may be. Three tests are proposed to measure the incidence of subnormality, of which the first and third are relevant to persons of subnormal modes of living, while the second is relevant to persons of subnormal intelligence. The first test is to ascertain "the growth or decline of the number of persons habitually living below the standard of family life, *e.g.* the inmates of common lodging-houses or casual wards and 'homeless' persons." The conclusion is that the number is almost certainly much smaller. The third test is the incidence of pauperism, and it is admitted that owing to administrative changes the figures throw little light on the question of the "subnormal."

The second test is the change in the proportion of mental defectives in the population. Three series of figures are given, the proportions per 10,000 of lunatics, of persons with mental infirmity relieved and of mentally defective children. It is concluded that these data do not justify any belief in an increase in mental defect. But it is admitted that the data are imperfect, and it would not be unreasonable to hold that the imperfections are so serious as to rob them of any value. During the discussion a reference is made to the Report of the Mental Deficiency Committee, and it is suggested that the findings of this Committee are at least not out of harmony with the conclusions just mentioned. Now this Committee found that there had been almost certainly a real increase in the incidence of mental defect. Sir Hubert, however, is inclined to discount this finding so far as London is concerned on the grounds that the highest incidence was discovered by the Committee in rural areas and because the extra-Metropolitan Borough, examined by the Committee and included within the area of the Survey, came out lowest among the six areas investigated by the Committee in respect of the incidence of this condition. But are these points of much relevance? We do know something about the incidence of defect in rural areas and in small urban areas, but, according to any sociological classification, great cities are a class apart and no detailed estimate of defect has ever been made for any of them. There are reasons for supposing that a great city may have a special attraction for those who cannot or will not take a regular job and for those who always hope that something will turn up, for the type of person, in fact, which includes a high proportion of mentally subnormal people. There do seem to be pools of mentally subnormal persons in great cities. It may be that the incidence is higher there than elsewhere. There is at least an unsolved problem of great interest, and it is to be hoped that those responsible for the Survey will not rest content without making some further effort to probe into it.

There is an admirable chapter by Professor Bowley analysing the population and its growth which incidentally gives some information about the birth-rate. Presumably in later volumes the birth-rate will be subjected to detailed analysis. Since the fertility inquiry of 1911 was not repeated in 1921, and is not to be repeated in the Census of this year, there is a deplorable gap in the official data bearing upon the problem of the differential birth-rate. We have no idea whether the disparity between the classes in this respect has been increasing or decreasing during the last twenty years. There is an obvious opportunity here for unofficial investigation to supplement official figures. The chapter on Health by Sir William Hamer takes the form of cataloguing the legislative and administrative changes and subjecting the figures to a familiar and rather obvious type of analysis. Nothing is said about occupational mortality, and it might be worth while trying to show how those belonging to different classes and following different occupations have fared during the profound changes that have taken place. Occupational mortality seems very relevant to a social survey, though perhaps the subject involves the exploration of a field that is too distinctively medical. The concluding chapter on Crime is one of the slightest in the volume. There is much more that is of very real interest to be extracted from the data, as is well shown in the admirable introduction to the current volume of Criminal Statistics, where the problem whether crime is increasing or decreasing is fully discussed. Even if no original inquiry is to be conducted into the causation and treatment of crime, there is a mass of unpublished material relating to such matters as probation, and it is to be hoped that in later volumes these will be used.

It is said that the Indian peasant divides his spare cash between lawsuits and railway travelling. We hear nothing in this volume of the addiction of Londoners to the former mode of enjoyment, but though it may be as much by necessity as by choice, they are becoming greater travellers. The glimpses we get of the manner in which the growing problem of what to do with our leisure is being solved are full of interest. The volume is human and Sir Hubert Llewellyn Smith works in the spirit of his master. The task is so vast that it is impossible to get of London, as we have of Middletown, a picture painted by one hand. That is the tragedy of London; no one can envisage it. But there is an easy way out. This is a machine-made age, and surveys like other things can be fashioned mechanically. It might well have come about under the pressure of the difficult circumstances that the conquest of the machine, grinding out research by the piece, over

the hand guided by a mind would have been painfully obvious. The Director of the Survey, however, is better equipped than anyone living to draw together the threads woven by others, and the single picture conceived by one mind being impossible, he has given us the next best—an accurate guide to the map of London Life and Labour.

It only remains to say a word of praise for the admirable manner in which the volume is produced, and in particular for the maps. But, as the Survey shows, most Londoners are still poor and, if many of them are to possess this volume, it can only be in a cheap edition. May we hope that this will be forthcoming?

A. M. CARR-SAUNDERS

The Theory of Interest. By IRVING FISHER. (New York: The Macmillan Company. 1930. Pp. xxvii + 566. 25s.)

CONTROVERSY concerning the influences determining price, or the returns to factors of production, depend, in the majority of cases, on the degree of emphasis which is given by the parties concerned to the two groups of influences which inevitably govern such prices or returns, namely, influences affecting supply and those affecting demand. The publication of Professor Irving Fisher's latest work, which purports to "present a complete theory of interest," bears witness to this fact. One of the aims of this book is to remove the "widespread and false impression" of some critics of the author's earlier work *The Rate of Interest*, that he had "overlooked or neglected the productivity or investment opportunity side entirely." Professor Fisher states that his theory of interest "has hardly been altered at all" since the publication of that book, and that it is only by a clearer exposition that he wishes to win over his critics. In a way, perhaps, the penultimate chapter of the book, entitled "Objections Considered," is the most illuminating of all, for in this chapter Professor Fisher's theory is defended against the criticisms which have been directed against it in the past, and it may be wondered whether the differences which are discussed, which are indeed only differences in emphasis, can ever cease to be matters of controversy.

The book is divided into four parts. Part I is introductory and consists mainly of the definition and elucidation of the terms to be used in the three succeeding parts of the book. Part II contains an exposition of the theory in words, in three stages, from one of extreme simplicity to a stage where assumptions are made corresponding more or less to actual conditions, and where

allowance is made for uncertainty, which is ignored in the earlier stages of the argument. Part III reproduces the argument of Part II mathematically. First of all the argument is expressed diagrammatically, mainly by the use of indifference curves, and secondly by means of formulæ. Part IV consists of a general discussion of various aspects of the theory, perhaps the best chapters being one on the relationship of interest to the price level, and the chapter on criticisms of the author's theory which has already been mentioned.

The rate of interest, as analysed in Part II, depends on what are termed *Human Impatience* or *Time Preference* on the one hand and *Investment Opportunity* on the other. Assuming that there is no uncertainty, individuals tend to be so constructed that an income enjoyed in the present has a greater desirability to them than the expectation of a similar income at a future date. This fact may be called the Principle of Impatience. It follows that, to the extent to which such a preference exists for present over future enjoyment of a given income, an individual will only postpone the enjoyment of that income on condition that he obtains something more in return at a later date, a premium will be necessary in order that he may be persuaded to postpone enjoyment, and the rate of this premium on the marginal unit of income whose consumption is postponed will tend to be the rate of interest at any time. The rate of premium demanded, that is, the rate of interest necessary in order that a given postponement shall take place, will be determined by various conditions which are fully examined, such as the size of the income of the individual, its distribution through time, or "time-shape," that is, the degree to which it is expected to increase or decrease in the future, and other factors which cannot be enumerated in detail. In general, however, if income is large, the preference for a given amount of present over future enjoyment is likely to be less, and therefore the rate of interest demanded for the postponement of the enjoyment of a given amount of income is likely to be less than it would be if the income were smaller. Again, if income is expected to decrease in the future, the preference for present enjoyment tends to fall, and therefore falling incomes and large incomes will both tend to be accompanied by comparatively great willingness to postpone the enjoyment of income, and therefore by a low rate of interest. These are just two examples of the simplest types of condition affecting "Impatience" which are discussed by Professor Fisher.

Since in ordinary life the character of income streams can be

changed, there is another influence affecting the rate of interest, namely, "Investment Opportunity." An individual can change the character of his income through time, and there may be various different ways open to him in which to do it. This is due to the fact that there are different opportunities of investment before him. Incomes tend to be adjusted through time so that the optimum "time-shape" is obtained. The present value of an income with a given "time-shape" may be capitalised, and the individual will adjust his time distribution so that this capital value is at a maximum. Further, "at the margin of choice any additions to the individual's future income at the cost of more immediate income constitutes a return over that cost, the rate of which return over cost" must in equilibrium be equal to the rate of interest. This rate of return over cost will depend on the opportunities of investment which are available to him. This fact may be described as the Investment Opportunity Principle.

The substance of Professor Fisher's exposition is an analysis of these two principles, but in spite of the fact that the book is written in order to convince his critics that he does not under-emphasise or neglect productivity or investment opportunity, the detailed analysis is almost all concerned with the influences which determine Impatience and very little, if anything, is said concerning the conditions which determine the "rate of return over cost," which is, of course, the index of the profitability of investment. If A borrows from B in order to *invest* the sum borrowed, Professor Fisher would maintain that since he only invests in order to procure future income, it is true to say that the interest on the loan is paid as a premium on a higher income in the future. On the other hand, the "Productivity" school would maintain that the theory of interest was incomplete until it explained the determination of the rate of return over cost, that is, explained why A's investment yielded any return at all, and why it yielded just the return necessary to induce B to postpone the enjoyment of his income in the present. The fixation of interest cannot be discussed without resort to the "scissors," and Professor Fisher's analysis, while not inconsistent with productivity theories, is no more than complementary, for it lays all the emphasis on the Impatience leg of the scissors and never does justice to the other leg, namely Productivity. If, in this book, the conditions determining the rate of return over cost, or the opportunity for investment, were considered as fully as the conditions determining Impatience, then indeed we should have a very near approach to a "complete" theory of interest.

One minor point should be mentioned. In discussing the importance of Impatience and the influences affecting it, no reference is made to the elasticity of demand for present income in terms of future income. Thus, while frequent reference is made to the fact that as an individual increases his postponed, as opposed to his present, enjoyment, his impatience will increase, and that therefore the interest required in order to induce him to save will increase, it is never pointed out that the quicker this takes place the more quickly will the rate of interest rise, and vice versa. Thus, not only must we consider the Impatience of the rich man compared with the poor man, but we must also take note of the rate at which the Impatience of either will alter as he increases or decreases his present enjoyment. In discussing the future of interest rates this is important, for if the demand for present income is inelastic, an increase in wealth will cause a much greater fall in the rate of interest than if the demand is elastic.

The book contains a useful appendix and a full bibliography. In arrangement it derives benefit from careful planning, and the inclusion of the mathematical exposition in the text, but in a separate Part, is much to be preferred to the relegation of masses of formulæ to footnotes or an appendix. P. A. SLOAN

University College of North Wales,
January 1931.

Efficiency and Scarcity Profits. By C. J. FOREMAN. (The University of Chicago Press. Pp. 343. 18*s*.)

IN a Foreword to this book Professor Commons says of the author's purpose: "His distinction between efficiency and scarcity profits is his main thesis, but back of it is his suppression of free competition by freedom of contract, and his theory of the original common law as a workable relation between the individual and the State hundreds of years before economists, philosophers and modern courts had obscured it." More explicitly, the main thesis of the book is that profits are analysable into earned and unearned elements, and that hitherto, as shown by an analysis of legal decisions in English and American courts, the former have been recognised at law, the latter not. The rise of monopoly and of restrictions on competition have led to an undue prominence of the unearned elements in fact, and a tendency in theory even to restrict the term profits to these elements. This unhappy fact and tendency are now being

reflected in legal decisions, and unearned profits are being afforded a legal sanction which is detrimental to the ethical standards of the law and to the inalienable rights of the individual in his relation to the State. The practical conclusion is that the "plane of competition" should be preserved in law and industry.

To establish this thesis it would then be necessary to show (1) that in theory profits are divisible into earned and unearned elements; (2) that these elements are separable in practice; (3) that from the point of view of public policy they should be separated. On none of these points does Professor Foreman succeed in being entirely convincing.

With regard to the theoretical analysis, the efficiency and scarcity profits, the earned and unearned elements respectively, to which in the main Professor Foreman confines profits, are Marshall's wages of the "pioneer" manager (which Nicholson, following Marshall's analysis, calls "wages of enterprise") and surpluses due to scarcity. So far as these surpluses are concerned, however, there is not preserved Marshall's clear distinction between temporary surpluses or quasi-rents, pure rents and monopoly surpluses—a distinction surely very pertinent to the question of public policy and to the view to be taken either ethical or functional of a surplus in any particular case. Students of Marshall will also feel that there is a disproportionate amount of time and space devoted to the proof of the reality of the distinction between efficiency and scarcity profits; but Professor Foreman evidently regards this distinction as in some sense new, and requiring to be established. He says of Marshall's analysis that it does not differentiate "the returns of intra-marginal producers; and, strange enough, no attempt is made to separate the profits of efficiency from the fluctuating market surplus" (p. 279). This statement is based on a sentence of Marshall's dealing with *normal* profits, but surely Marshall's treatment on this question must be taken as a whole? To whom if not to Marshall do economists owe their knowledge of precisely these things? It is also very misleading to say of Nicholson, because he recognises a "chance" element in profits as one possible element, that he "makes profits analogous to the now-familiar unearned scarcity increment" (p. 275). Professor Foreman regards a clearer theoretical analysis of profits as being a pressing necessity for his purpose, but in this he would seem to misconceive the real point of weakness in his position. The various elements which may enter into gross profits are not disputed in theory, although there may be some difference of opinion as to

which of these elements the term profits may most usefully be applied; but this is a question of terminology. The division of profits into "earned" and "unearned" is, however, quite another and a more difficult question. On this question of theoretical analysis another American economist, Professor Barnett, has said: "The history of the theory of profits . . . has been determined not by increasing accuracy of economic analysis, but by great industrial and credit changes which from time to time have shifted the ownership of the product. The really important historical question has been: Under a given set of conditions, to whom do profits come, not what does the entrepreneur do to get them?"[1] This is an illuminating statement, and all the more so because it enables the point to be made that the two last considerations it raises are ultimately or dynamically inseparable, since it is the struggle to obtain these profits that to a great extent determines, even constitutes, the directing force. Even from the point of view of theory, then, profits which viewed statically are unearned, may nevertheless be functional and therefore, viewed dynamically, earned. This aspect of the question is insufficently realised by Professor Foreman, and this inevitably weakens his case also on the other two points.

On the second question, whether earned and unearned profits where they do exist are separable in practice by the application of a satisfactory test, the treatment is more original and has much of the interest of a heresy hunt. It has also eventually, however, all its usual inconclusiveness, even as to the identity of the heretic. The method employed is to show by an analysis of legal decisions bearing on profits, the type of profits to which courts have respectively afforded or refused to afford legal protection and also the grounds of the decisions. The result of this analysis would seem to be that (in awarding damages, for example) courts have in the main protected efficiency profits, but have discountenanced speculative gains, and that the test applied in distinguishing between these two has been based on considerations of costs of production. But apart from the fact that this implies no necessary condemnation of speculative gains as such, how far, it must be asked, does this really take us? The function of the entrepreneur is now so divided and the forecast for industrial development and, therefore, the sphere of the speculative element so extended that nineteenth-century decisions protecting the differential returns of individual inventors, or discountenancing claims based on speculative gains are not convincing

[1] *Economic Essays in Honor of John Bates Clark*, p. 20.

parallels for the more complex existing conditions. A reduction in costs as a valid test for efficiency profits could only be applied to the entrepreneur who was a producer, and this type of entrepreneur does not as a rule obtain the market surplus. The market surplus goes more usually to the trading entrepreneur, whose costs of production are mainly dependent on his ability to buy low and sell high, *i.e.* on the market surplus; but this is just what is objected to as being "unearned." If one business combines both types of entrepreneur it will reasonably expect to receive the results of both efforts, and both efforts will be so combined as to make the results in the long run inseparable. Further, early legal decisions at a period when the difficulty was to find goods rather than markets are no guide for a period when the difficulty is to find markets for an indefinite quantity of goods. Professor Foreman complains that "In the evolution from mediæval to modern principles the courts have found it unnecessary to draw a legal distinction between cost profits entering into the costs of production and speculative profits arising from an increased demand. However, in the adjustment of these economic concepts it is likely that both jurists and statesmen will be forced ultimately to meet the legal-economic problem which lies in the separation of cost, speculative and monopoly profits" (p. 267). But such a separation might be attained without shedding much light on the question as to which of these profits was earned or unearned or being either of these things, functional or non-functional.

With regard to the third point, the attitude of public policy towards market surpluses, it must be recognised that marketing is now of necessity becoming a highly developed and specialised function, and whatever may be the view to be taken of market surpluses, it must be based on a recognition of this fact. Some market surpluses are no doubt to be condemned, but the time has passed when condemnation could be attached to market surpluses as such, even if they be obtained under conditions of monopoly. From the point of view of public policy the objection to any type of profit is not that it is unearned, but that looking to social welfare it is non-functional. It is on the social plane of function, not on the individualistic plane of effort, that the ethical and the economic justification of profits as of other forms of property are to be reconciled. It is on the social plane of function also that the respective merits of combination and competition must ultimately be judged and afforded legal protection. Therefore, although Professor Foreman may be right in concluding that the

legal preservation of liberty of competition is the best method for the prevention of the abuses of monopoly, this hardly justifies his belief that law exists, and has always existed, for the purpose of preserving the liberty of the individual.

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International Economic Relations. By JOHN DONALDSON, Ph.D. (Longmans, Green & Co. 1928. Pp. xxx + 674. 16*s*.)

THE study of the wealth of nations in general, as opposed to the wealth of nations in particular, has been greatly extended since the war, mainly as a result of the research which has been conducted by the League of Nations and allied institutions; but at the same time academic studies of international economic problems are still scarce, and books which attempt at a comprehensive survey in this sphere are much needed. The reader who takes up this book, expecting to find a thorough study of world economic problems, is likely to be disappointed, since, though the attempt to write "A Treatise on World Economy and World Politics" is laudable, it has not proved entirely successful. There are perhaps three main reasons for this failure. Firstly, the sphere which the author has tried to cover is too wide to permit of a more than superficial treatment of many important problems; secondly, a great deal of the subject-matter is not strictly a study of the economic relations between nations at all, but a rather "woolly" comparison of certain particular aspects of economic life in different countries; and, finally, because the author almost entirely neglects many very important post-war problems and the organisations which have been built up for the purpose of solving them. References to the League of Nations are only incidental, and the League is considered of so little importance that it is not even mentioned in the index. The most successful chapters in the book are those which are purely descriptive, the description of national and international combines and cartels (Chaps. VIII and IX), the story of political and economic interference in Turkey and China (Chap. X), the distribution of raw materials (Chap. XII), and the relationship between the petroleum industry and politics (Chap. XIII); but even these chapters are only of use for reference purposes and are too "facty" to make enjoyable reading.

The book is divided into two parts: firstly, a study of the "basic" factors affecting world economy, and secondly, its "structure" and "industrial basis." The basic factors are classified as geographical conditions, race and population, forms

of political and economic organisation, the legal factor, and, finally, the distribution of territory. In discussing these various factors the author has outlined very briefly the part played by each in determining economic life, but on the whole has not adequately analysed many of the influences which he mentions. The possible effects of climate on race, for example, are speedily dismissed as being more or less incalculable; while in discussing the relative capacities of different races for economic activity it is assumed, without discussion, "that the races inhabiting the United States, Great Britain, Germany, France and Japan, to mention only a few outstanding examples, must possess such capacity in a large measure" (p. 30). No mention is made of the various possible combinations of climatic, political and other factors than race which might have caused their industrial supremacy, whereas, in fact, this subject would have been both a legitimate and important one for discussion in this part of the book. Again, in considering the political factor we are told that there are four stages in economic development: "independent domestic economy . . . town economy . . . national economy . . . world economy," and yet no reference is made to the important fact that town economy and world trade developed in many cases together, before the evolution of the modern nation. Again, world economy is discussed entirely without reference to the growth of world organisations such as the I.L.O. and the League of Nations. The discussion of the legal factor, although mainly confined to factual statements, is the most useful of these chapters, containing a short exposition of certain aspects of international law which should be useful for reference.

The discussion of "national and world economy" which occupies the second part of the book is uneven in quality. In so far as it is purely descriptive it should be good for reference but the more theoretical discussions lose much through lack of conciseness in expression. As an example, the following remarks concerning the national income of various countries may be quoted, from the chapter on "The National Economy of the United States": "The structure of the national economy finds one form of expression in the national wealth and income and in such resulting phenomena as the standard of living. The national income of the United States, as is commonly known, is very high. In 1914 in total amount it was more than three times that of the United Kingdom and was *per capita* 25 per cent. higher than that of Australia" (p. 223). On the following page further light is thrown on the matter: "The pre-war *per capita* income

of Australia was very high, but it did not greatly exceed that of the United Kingdom, and that of Canada was rather (*sic*) high but did not vastly exceed that of France and Germany." Admittedly, such statements are substantiated by certain tables, but even then, the use to which the information is put hardly justifies these rather laborious comparisons of the relative "heights" of national incomes.

In discussing the possibilities of international control of world economic affairs the book is unsatisfactory. No account is given of the work which has been done since the war in many spheres under the League and I.L.O., and proposals for further control are treated with contempt. For example, following the description of the growth of monopolies of an international character it is concluded that "though international discussions of the problem may prove helpful, the most feasible as well as effective treatment lies in the actions and reactions of the economic processes themselves" (p. 346), and this conclusion is reached without any discussion of possible alternatives or mention of the possibility of League influence through giving publicity to the operations of international combines and so on, in default of finding even stronger methods of control. Again, in the discussion of the problem of international control of raw materials we find the following crude classification of policies which might be adopted. There are, we read, three possible solutions before us: the "nationalist solution," in which case each country becomes a self-supporting unit, the "socialist solution," in which case trading is carried on by some international organisation, and the "free trade" solution. "The mere mention of the nature of the schemes is sufficient to show how far they are from practicable or feasible" (p. 501). In this case, not only does the author's outline of possible ways of controlling the use of raw materials do grave injustice to many possible methods of control of varying degree which have been suggested, but it does not even discuss thoroughly the three categories of remedy which are mentioned. These examples are adequate to show that the subject of international control has been far from satisfactorily considered.

In a book on *International Economic Relations* the reader would expect some account of movements of both capital and labour from country to country, the relationship between the currencies of different countries, differences in standards of living and possible ways of reducing these differences, and the ways in which these factors, together with working hours, wages and prices, are being, or might be, subjected to various forms of control. In this

book, while a short reference is made to migration, and the connection between capital investment and political intervention is given full consideration with respect to certain particular cases, currency problems and the ways in which differences in standards of living and working conditions might be altered in different countries are not mentioned. Some of these omissions, it is true, may be made good in a later volume which is to follow, of which a summary is given at the end of this one. The second book will continue the study and will be divided into three parts, concerning "International Trade," "Finance," and "Agreements and Organisation," and in the third of these parts one section will be devoted to "Concerts, Conferences and Leagues." Is it in this section, it may be wondered, that the League of Nations will come into its own? As to the other omissions, such as monetary questions, and the regulation of prices, wages and hours and conditions of work, there is no promise of fuller treatment; though it is doubtful whether a modern book on international economic relations can be complete without the inclusion of these subjects.

In conclusion then, it may be said that this book is an attempt to cover ground which certainly ought to be covered by academic economists; but it is an attempt to discuss, not only the relations between countries in the economic sphere, but also the underlying factors in national economy as well. The author has undoubtedly given himself too wide a field, with the result that much of the book is superficially written and important omissions are made. On the other hand, for purposes of reference, certain chapters which have already been mentioned are undoubtedly useful.

P. A. SLOAN

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Reparation Reviewed. By SIR ANDREW MCFADYEAN. (London: Ernest Benn, Ltd. 1930. Pp. 218. 8s. 6d.)

IN spite of the growing disinclination of the general public to look at any kind of literature relating to the war, except perhaps lurid records of actual trench life, books like this of Sir A. McFadyean's perform a valuable service to the economist, the financier, and the serious student of affairs, and by them are sure to be valued. Most of the episodes and situations discussed in its pages may belong in the main to the past, but if it is important that the history of them should be written, it is doubly important that it should be written with knowledge of the facts and impartial judgment in their interpretation, and Sir A. McFadyean's work

satisfies both conditions. The larger part contains a review of the various stages through which the reparation question has passed since January 1920, when the Treaty of Versailles came into force, separate chapters being devoted to the early administration of reparations, the first four years of failure, " a record of disgraces best forgotten," he says (as if they could ever be forgotten in Germany so long as the word Ruhr stands on the map !), the Dawes plan and its purpose, Germany's recovery under the Dawes plan, her foreign borrowings, the transfer problem, the Young plan, and the present outlook.

What most readers will be chiefly interested to know is the writer's opinion of the last reparation " settlement " and Germany's ability to meet her obligations under it. In this connection the chapter on Germany's borrowing will probably reassure many people who have hitherto observed with surprise that country's eagerness to accept foreign money, either in the form of Government, municipal, and mortgage loans, or of industrial debenture and share purchases, and the readiness of lenders and investors to provide this money. Sir A. McFadyean does, indeed, regard with misgiving the prodigal borrowing of the last several years, while granting that recovery has been made possible by it. Nevertheless, he rejects the view that the time is certainly coming when Germany will have no security to offer a foreign lender (a view which Professor Cassel advanced subject to an important qualification), and suggests that if over-borrowing precipitates a breakdown, it will be because her creditors are becoming obsessed by fear that her foreign debt is accumulating at compound interest.

The author endorses the common-sense opinion of the American Professor J. W. Angell, whose book, *The Recovery of Germany*, was reviewed in a recent issue of the JOURNAL, that Germany can only meet her indebtedness by constantly increasing her exports of industrial products, which means ever-growing competition in the world markets, and particularly in the markets of her creditors. Assuming that, in the absence of natural advantages which have not already been exploited to the utmost, the lower costs of production necessary to facilitate these inflated exports will have to be sought in reduced wages, he concludes that the German workman may prefer to work a shorter time on the old rates of wages than full-time on a seriously depressed scale, so checking *pro tanto* any tendency to lower productive costs and prices. On the other hand, is it not reasonable to suppose that the reduction of overhead charges due to mass production on an abnormal scale will effect a large economy, and even that the

more tenacious stand for a relatively high level of money wages which labour will inevitably make in countries not burdened by heavy indebtedness to the foreigner, will play powerfully into Germany's hands? It does not follow that exports so facilitated could be rightly considered as "dumped," unless in comparing wages and standards of life the presence or absence of traditional frugality and good housewifery must be disregarded—a point which may deserve more attention than it has yet received in our definitions of "dumping."

The possibilities opened up cannot be contemplated without anxiety. But will events take that course? Is it not more likely that the reparation question, which is not merely a question between Germany and the allied Powers, but an international and world question in the fullest sense, will eventually be settled, not by any virtuous scruples concerning the debtor's ability to meet obligations accepted under compulsion in 1919, but by the creditor nations and their Governments recognising that reparations paid by the flooding of their own and other markets with German competitive goods, are a mischievous impediment to sound international exchange? Failing that pacific solution, fate may have sterner measures in store for Europe. Those who think that Germany is going to pay tribute for thirty-six years, because of a war the responsibility for which she shares with all the other belligerents, are nursing a dangerous illusion. Passages in his later chapters indicate that Sir A. McFadyean himself entertains grave doubts as to the finality of the last reparation revision. Hence his view that while the momentary outlook may be encouraging, "the background to the picture is more sombre."

This is an exceptionally well-balanced piece of work, careful in statement, acute in reasoning where it is a matter of argument and demonstration, and almost pedantically judicial and guarded in conclusions. One is, indeed, apt at times to wish that the writer's mild, bromide criticisms were a little more vigorous and outspoken. More than once his detached frame of mind seems to make him unjust to this country, as in his references to our Government's attitude on the question of the Allies' debts and the French determination to "bleed white" the late antagonist. In resisting that irrational policy Great Britain performed a great service to Europe—and incidentally to France—deserving of more generous recognition than it has received, and whatever the tactics which had to be resorted to, the end amply justified them. Is it not permissible also to ask that English writers will abandon once for all the French use of the word "sanction," so

unpleasantly associated with illegal and cruelly vindictive measures, for which happily this country bears no responsibility? The word used to be held in honour amongst us: why allow it to be longer declassed and defamed? W. H. DAWSON

The National Debt. By E. L. HARGREAVES. (London, Edward Arnold and Co. 1930. Pp. 304. 15*s*.)

MR. HARGREAVES has written a careful and detailed history of the National Debt from its birth to the present day. At first an obligation due from the Government to the three big corporations—the Bank of England, the East India Company and the South Sea Company—and presumably of a temporary character, the Debt had already by 1730 become a national institution binding the State to a host of creditors "every one of whom desires to be the last in the Course of Payment." It is the story of this institution and the parallel tale of the Sinking Funds intended for its abolition that Mr. Hargreaves has to tell.

The author permits himself few comments on his narrative, though he quotes at some length the views of contemporary writers at all stages in the history of the Debt. Perhaps his readers should be grateful for this reticence, since comment could hardly be other than cynically depressing. There can, indeed, be few chapters of economic history more completely devoid of progress than those which are the subject of this book. In two hundred and fifty years we have neither invented any significant new method of dealing with the Debt nor shown any growth in the persistence with which we are prepared to apply old methods. Every kind of Sinking Fund—cumulative, non-cumulative, specific, general—has been tried, and every kind has, on one pretext or another, been violated. Walpole's Fund of 1716 is openly raided by its own author little more than a dozen years after its establishment. Our own generation of school children is taught to ridicule Pitt for borrowing with one hand in order to pay back with the other; yet in 1922 Sir Robert Horne could find the most admirable reasons for following exactly the same course. There is variety only in the ingenuity of the arguments which are used to justify light-hearted disregard of any liability for debt repayment. In the early nineteenth century the accumulation of a Sinking Fund offered a dangerous temptation to Ministers looking for money to spend without Parliamentary sanction. In the twentieth century it is merely bad for trade, and must wait till times are better.

And it is just the same with the more radical proposals for

debt funding or redemption. Did not Hutcheson in 1721 and Ricardo in 1820 anticipate the Labour Party's recent plan for a capital levy? Was not the case for funding war pensions argued with just as much plausibility in 1822 as a hundred years later? Meanwhile the upward trend of the debt charge continues, and the method of a fixed charge that will redeem the entire debt in forty or fifty years renews its popularity with every half-century that passes.

Mr. Hargreaves concludes his book with the statement that so far as "a reduction of the burden of the debt is regarded as a problem to be solved, the solution must come from a deliberate financial policy consistently and resolutely pursued." Past experience, however, as his own most illuminating study shows on every page, gives little ground for anticipating any such consistency or resolution. BARBARA WOOTTON

Gold, Credit and Employment. By G. D. H. COLE. (London, George Allen and Unwin. 1930. Pp. 165. 5*s.*)

THIS book consists of papers reprinted from the *New Statesman* and *New Leader*, together with an introductory essay not previously published. It is largely concerned with Mr. Cole's views on currency policy, the main features of which may be summarised as follows: (1) the gold standard should be retained in the interest of stability of exchange and because of its international advantages generally; (2) convertibility of the internal currency into gold at a fixed rate (presumably in the present limited form, though no reference is made to this) should also be retained; but (3) there should be no legal limit to the fiduciary issue, and the whole of the Bank's gold reserve should be treated as effectively available for export; and (4) the supply of internal currency should be based "not on the stock of gold, but on the needs of industry and commerce." Mr. Cole hardly meets the obvious criticism that certain of these principles are mutually exclusive, nor is he very explicit as to the interpretation of the last, which is clearly all-important. He does, however, state definitely that he is not hoping for complete stability of internal prices, and that he is prepared to sacrifice this, if necessary, to stability of exchange. On the other hand, he is surprisingly silent about the possibilities of the international management of gold itself.

The later papers in the book develop the author's views on the unemployment problem on lines already familiar to readers of his *Next Ten Years.* Mr. Cole's essential difference from what appears to be the official attitude to unemployment is that he

denies that any material improvement must wait upon a revival of trade, holding that "jobs can and must be found for most of the unemployed *before we can expect industry to revive.*" To this end he renews his proposal for a National Corps to be voluntarily recruited from the unemployed. For the ultimate revival of industry Mr. Cole looks (with the orthodox) to rationalisation, in which a banking industry, itself rationalised on less orthodox lines, is to play a large part in the coercion of the irrational.

BARBARA WOOTTON

Poverty and the State. By GILBERT SLATER. (Constable & Co., Ltd. 1930. Pp. vii + 480. 12*s.* 6*d.* net.)

DR. SLATER has brought together in this book a mass of useful material on a number of subjects which are not frequently treated in relation to each other. He has passed in review, for each of the main factors in the causation of poverty, the history of the methods by which at different times the community, and in our own time the State itself, has sought to deal with it. The order of arrangement is at first somewhat confusing. The Poor Law is treated in specific chapters that bring the story down to the Reform of 1834, and for the later history one has to turn to much later chapters on the Care of the Child, in which chapters a good deal of information not strictly relevant to the title of the section has to be introduced. Nevertheless, the book has a method and a logic of its own, which more and more impresses the reader as not only unusual but useful. For from time to time in our history some special problem of poverty has been particularly pressing or has been felt to be so, and has brought about some new development in the provision of measures of relief or prevention. Hence, by taking in turn the problems of sanitation, of the care of the child, of sickness and old age, of overcrowding and slums, of alcohol, of betting and gambling, of lunacy and mental deficiency, of the care of the blind, the deaf and the crippled, and finally of unemployment, Dr. Slater has been able not only to reveal an expanding series of State and voluntary agencies for dealing with the problem of poverty, but also to trace the course by which each of these factors in the problem has given rise to special efforts of private or public initiative.

Most of the information has been brought together from easily accessible sources, but Dr. Slater has produced some new or less familiar evidence on a number of points. A few examples may be given. He intrigues us by hinting at evidence not yet

in print which goes to show that the main cause of unemployment in the sixteenth-century crisis was the improvement of ploughs and ploughing. He cites an interesting case of an eighteenth-century society on the border-line between a Trade Union and a Friendly Society in the "Chesterfield Union Benefit Society," which was only removed from the register in 1927; and also an instance of a co-operative mill constructed by the Woolwich Dockyardsmen some time before 1760.

He contributes his personal experience of "relief works" in Woolwich under Dr. Walter Long's scheme for London just prior to the Unemployed Workmen Act of 1905, and also of the highly efficient and successful public works organised in India to meet the Indian crises of unemployment which are usually known as "famines."

The section on Unemployment reviews the main theories and proposals for relief and prevention, and Dr. Slater emphasises the too often disregarded correlation between the incidence of wars and the trade cycles. He revives a proposal of his own made before the Great War for the institution of a "Public Shareholder"—that is, a specialised Government Department, to which should be assigned the duty of watching the initiation of new capital issues, detecting fraud, and prosecuting where necessary; and he advocates, like Mr. Cole, measures for directing the flow of investment.

The most conspicuous gap in the book is the absence of any reference to the problem of "sweated" wages and the institution of Trade Boards, and we are surprised to find no discussion of the definition of the term "poverty" in the light of the Rowntree and Bowley investigations, nor indeed of the general question of wages and the standard of life. On this point the book needs supplementing by the sort of material that is to be found in Messrs. Carr Saunders and Caradog Jones' *Survey of the Social Structure of England and Wales*, to which there is surprisingly no reference in Dr. Slater's bibliography.

The book is based on a course of lectures given to students training for various kinds of social work, and it may be recommended not only to the student of social history and organisation, but in particular to those concerned with University Social Training Departments.

A. Barratt Brown

Ruskin College, Oxford.

Labour Problems. By GORDON S. WATKINS, Ph.D. (Sir Isaac Pitman & Sons, Ltd. 1929. Pp. 726. 15*s*.)

THIS work is a revised edition of a book which appeared in 1922, but the revision has been so extensive, we are told, as to make this new edition practically a new book. The scope of the book is very comprehensive; the book is divided into eight parts and consists of twenty-nine chapters, in the course of which most matters affecting labour may at least be said to have been touched upon. At the end of most chapters there is appended a useful list of books for further reference.

A book of this nature inevitably raises in the mind of the reviewer the question of the purpose it can most usefully serve. The book endeavours, and with considerable success, to give a sane and balanced view of the many problems affecting labour, and the English reader will glean much of interest from the sidelights thrown on American views and conditions. It is comprehensive enough in scope to serve as a book of reference, but the treatment of certain questions, *e.g.* minimum wages, factory legislation, trade boards, etc., is too slight to be of any value taken by itself. The book is evidently primarily intended to serve as a general introduction to the labour problem, but the easy informative way in which it is written makes it of doubtful value as a text-book for the serious student. One cannot help feeling that the method of exposition followed here is not the way through which the writer himself attained his knowledge of such questions. On the matter of text-books there is much to be said for what the late Professor Burnet called "the recapitulatory theory of education," by which he meant the guiding of the student along the paths the teacher himself has trod. On the descriptive side the book is, however, very useful, more especially perhaps, the chapters dealing with labour organisation, child labour and unemployment, affording as they do an interesting basis for comparison between labour conditions in these respects in America and this country.

M. T. RANKIN

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The Labour Injunction. By FELIX FRANKFURTER and NATHAN GREENE. (New York: The Macmillan Company. 1930. Pp. 343. 21*s*.)

THE history of American Trade Unionism furnishes some startling illustrations of the difficulties involved in the adjustment of the legal system to economic conditions. Grave problems arise

from the intervention of law in the controversies of industry. Upon what principles is organised Labour's legitimate sphere of action to be defined? What is the category of purposes for whose attainment the strike is to be a privileged means? What tactics of organised Labour are to be allowed in its effort to improve its material conditions? How are those principles of liberty which are automatic in political life to be made effective in industry? Recognition of the necessity of Trade Unions—and the right of combination by workers is in itself a corollary to the dogma of free competition as a means of equalising the factors that determine bargaining power—recognition implies acceptance of the economic and social pressure that can come from united action. Such acceptance, however, leaves open the questions: how far? and, when? How far may workers combine to strive for concessions that are not of immediate benefit to them, but which strengthen the Union organisation? How far may a Union in one craft use its power to achieve the unionisation of non-union plants within the same craft? How far may a Union of one craft exert its power in aid of Unions of another craft? How dependent must one craft be upon the other to justify co-operative tactics? How are terms of convenient vagueness, such as "coercion," "intimidation," "peaceful picketing," to be interpreted with any degree of precision? These issues are usually left to the courts for decision. The governing rules of conduct as to Labour Law are essentially not legislative formulations; largely they are judge-made law. The results have been unsatisfactory. There are technical matters on which judges may claim peculiar competence and on which their decision commands respect. But industrial controversies raise issues of policy, and for their solution qualities are required which the majority of judges do not seem to possess—sympathy, elasticity of mind, insight into social values, sensitiveness to changing social needs. The majority of judges have seldom attempted to bring their opinions into nearer agreement with the economic facts. They have been content to look at facts only through glasses coloured by those very opinions. Social prejudices—and in the decision of these questions there is wide room for the play of prejudice—have often been mistaken for eternal principles. The legality of purposes has been made to depend on precedent rather than on their relation to conceptions of the common good.

In the United States, the law of associations arises almost entirely out of injunction cases. These are handled by Courts of Equity. These Courts deal with injunction cases without the benefit of substantial statutory guidance. Moreover, the

Legislature's attempts to limit the jurisdiction of the Courts in these cases have been successfully checked. Laws passed with this object have been declared unconstitutional.

America's distinctive contribution in the application of law to industrial strife is the labour injunction. In the administration of justice between employer and employee it has become the central lever. The most serious question confronting Trade Unionism in the United States is the use and abuse of injunction in labour disputes. (And has not the United States more strikes both in absolute number and relative to the population than any other country?) The exercise of their powers in labour controversies has harmfully implicated the Federal Courts. Organised Labour has come to view all law with resentment because of the injunction. The hostility which it has caused creates a political problem of some importance. "Government by law and duly constituted authorities has in many instances been supplanted by government by injunction, government enforced without statutory enactment." "Government by injunction must cease if government by law is to function unchallenged." (Convention of the American Federation of Labour, 1926.)

In Great Britain judicial decisions have repeatedly provoked the intervention of the Legislature. In the United States, Congress has to contend with constitutional complications from which Parliament is free. Congress has tried to grapple with the injunction question notably by means of two sections in the Clayton Act. Samuel Gompers described section 6 as "the industrial Magna Charta upon which the working-people will rear their construction of industrial freedom." The good intentions of Congress have been frustrated. Common law doctrines of conspiracy and restraint of trade still threaten American Labour. Activities widely cherished as indispensable assertions of Trade Union life continue to be outlawed. Injunctions are still the effective method of enforcing those individual or "yellow dog" contracts whereby employers force employees to give up organisation rights. In December, Congress is to make another attempt. It is to consider a Bill prescribing rules for the issuing of injunctions. A full understanding of the history of a questioned legal institution is necessary to wise reform. Professor Frankfurter and Mr. Greene try to supply this. Their work records how labour injunctions came to be and how they operate in practice, the uses which they serve and the abuses to which they have given rise.

J. LEMBERGER

The University of Belfast.

Fixation of Wages in Australia. By GEORGE ANDERSON, M.A., LL.M., M.Com. (Macmillan & Co. and Melbourne Univ. Press. Pp. 554. (21*s.* net.)

IN this book we have a preliminary survey of a new branch of legal precepts, likely to grow in importance in the coming decades—those concerned with jurisdiction over economic affairs. In this field there is little of precedent and at present much confusion. Mr. Anderson hardly charts the field with new principles; but he has considerably tidied an important section of the ground for future surveyors, and has provided us with a compendious work of reference on the arbitration and wage-regulation system in Australia. In doing this he has been predominantly interested in the legal aspect of the matter rather than in its economic significance: the book is essentially a case-history of arbitration procedure, rather than an economic analysis. At the same time, the work is of high importance for the student of wage theory as a record of the legal machinery and procedure which have developed in this country where State fixation of wages has been carried to the highest point.

In Part I the machinery of Federal and State arbitration is described in considerable detail, particular attention being paid to the problems arising from the conflict of authorities and to the awards by which an attempt has been made to draw the frontier between State and Federal jurisdiction. In Part II, which forms the larger section of the work, the several problems involved in wage-fixation are described and the attitude adopted by the Courts is carefully listed. Here there is material of special interest to the economist. The various interpretations of the "basic or living wage" and the calculations of the cost of living for this purpose, with its disturbing variations between different cities, are set out in detail. The problem of the so-called "secondary wage" is outlined, and considerable space is devoted to a record of decisions of the Courts on the complicated matter of "wage differentials" for dangerous, disagreeable or difficult work, on the rates for women and juniors, and on the fixing of piece-rates and hours of work.

The economist could have wished that the author had attempted some generalisation about the results of the system which he describes with so much care. But admittedly he is concerned with legal rather than with economic precepts. As a source-book for the economist it is invaluable; but it does not pretend to be any more. Such general conclusions as the book provides are contained in a brief introductory chapter, where they are presented as

tentative *obiter dicta* on the arbitration system as a whole. Mr. Anderson is of the opinion that " most of the charges supposedly made against the system of compulsory arbitration are actually not made against the system itself, but against some weakness in the means used to effect compulsory arbitration." At the same time, "the fact remains that there is much to support the employers' complaint of undue interference. . . . The awards of to-day are, in many cases, very complicated, and attempt too minute a regulation of working conditions." Moreover, there is " one marked weakness of the existing system—it does tend to array employers and employees in opposing camps, and to foster the litigious spirit. Taking the system as a whole, we venture the opinion that it is a sound and sane method of adjusting the industrial relations of employers and employees."

MAURICE DOBB

Cambridge.

The Theory of Collective Bargaining. By W. H. HUTT, Senior Lecturer in Commerce in the University of Cape Town. (P. S. King & Son. Pp. 108. 5*s.* net.)

THERE is much reason to welcome the returned popularity of the pamphlet as a literary form, especially for critical or polemical writing. For the suggestion of new ideas or support of a specific thesis it has everything to recommend it to an unleisured age. But it cannot be recommended for everything. Mr. Hutt's essay possibly strays beyond the strict bounds of a pamphlet. But one feels that the form he has adopted has imposed a method upon him a little too unsophisticated, perhaps, for the problem he handles. True, the thesis he advances is a straightforward one: namely, in his own words, "to controvert the suggestions typical of most modern economic text books, (*a*) that there is some portion of the normal remuneration of labour which, in the absence of collective bargaining by labour, is, or can be, transferred to the remuneration of other factors of production owing to labour's 'disadvantage in bargaining'; or (*b*) that combination by increasing labour's 'bargaining power,' enables it to acquire a part of the normal remuneration of some other factor." But he has attempted to interweave a critical survey of what others have said on the matter with analytical proof of his thesis. The combined task is not impossible; but in so confused a field as the theory of wages the combination of the two is particularly difficult. To use the ideas of others as ninepins to one's game is an excellent mode of exposition. But the ninepins must be

ascetically chosen as such and the attack on them subordinated strictly to the general strategy of the game. Moreover, if one handles them to this purpose, one needs to do more than justice to one's adversaries—to give to their words more logic than the words actually hold. Otherwise the game is apt to be too cheaply purchased. This Mr. Hutt does not always do. And one is left with the feeling that zeal for his thesis often causes his exposition to do less than justice to his predecessors' meaning, while in the attempt to be comprehensive in his historical review he does imperfect justice to the intricacy of the problem which he attacks.

On the whole, Mr. Hutt's survey of what others have said on the subject of collective bargaining is deftly conducted, and gives us a picture that we are grateful to have. Here the author is at his best: he does not merely record in a monotone, but weighs and emphasises so as to make us notice much that has been passed over too summarily before. The recitation is both interesting and stimulating. Adam Smith's classic exposition of the "labourers' disadvantage" comes in for close criticism. Thornton, as one would expect, receives severe chastisement; and J. S. Mill is called to account for his tolerance of trade unions. Jevons is cited in the main approvingly; whereas Marshall's tentative barter-analogy is swept aside as irrelevant to the problem of "a free market."

The statement of the author's own position greets us with a refreshing breath of Harriet Martineau and the early nineteenth century. Mr. Hutt has no hesitation in going straight to the gist of the matter: the efficacy of trade-union action and of legislative interference. So sharp and clear a statement of the issue is stimulating to meet: there is none of that circumlocution and evasiveness which seems to have wrapped up the theory of wages in recent years. "Workers' combinations," says Mr. Hutt, "are impotent to secure a redistribution of the product of industry in favour of the relatively poor. Such a result cannot be achieved by interference with the value mechanism." Again: "the rate of wages which is best for the workers as a whole is that which is determined in the free market. The main useful function of collective bargaining may perhaps be negotiating about things which, unlike prices or rates of wages, are *not* adequately determined by the market process." The only "exploitation" that can take place is that of the consumer (through a diminution of the national dividend) chiefly in the form of "joint monopolies" of employers and employed to raise prices; and to the influence of such monopolies in having

"destroyed the sensitiveness of the price and particularly the wage system" is attributed primary blame for "the continued appearance of industrial depression in Great Britain." Collective bargaining and measures of "joint control," in that they tend to facilitate such joint monopolies, represent a retrograde step rather than a desirable development. *Laissez-faire* could hardly be more uncompromisingly or vigorously championed.

In supporting this thesis Mr. Hutt seems much less successful than in his statement of it; and one feels that he has reached his satisfying conclusion by skipping too lightly over the main issues which cross his path. It is easy to postulate a number of several equilibria provided one assumes conditions enough; and Mr. Hutt, by selecting appropriate assumptions, is able to dogmatise about a number of things with an efficient air. At the same time, these assumptions are never made perfectly clear: whether he is hiding them from himself or only from us, I do not know. But it appears that Mr. Hutt adopts the device of assuming the supply of capital to be almost indefinitely elastic; not merely of capital in a particular use, but capital in general—or rather, he seems to draw no clear distinction between these two senses and to execute a skilful jugglery between them. (For instance, what relevance has it to the problem of distribution in general to say that "no factor of production can maintain the co-operation of another factor by offering or leaving it an amount of the product less than the value of its net product elsewhere"? Where is "elsewhere" when one is dealing with distribution in general?) One feels that too little use is explicitly made of the distinction between the short period and the long, and that the author succumbs too readily to the temptation to resolve all difficulties in the infinitely long period. This device enables him hardly to notice the problem of the variability (or lack of it) of the forms of capital and what Walras called the "technical coefficients" (for instance, his statement that "the size of the technical unit of supply is irrelevant.") Moreover, one is led to suspect that the category of "the consumer" sometimes plays the rôle of a *deus ex machina* to resolve the difficulties of final analysis. But the interesting theoretical point which Mr. Hutt, I think, successfully establishes is that *on these assumptions* "exploitation" in the specific sense of Professor Pigou can only be a local and a transitory affair.

On a number of subsidiary points, supporting his central theorem, Mr. Hutt appears to be either too subtle for us or else insufficiently subtle for the problem he handles. The question

of whether and how a changing marginal utility of income to the worker influences the wage-level may be a matter of controversy; but to dispose of the difficulty in the following way is hardly convincing: "It is quite true that the poorer a workman is, the higher will be the marginal utility to him of further increments of income. . .; but whilst it is clear that that will affect the intensity or amount of his efforts to get further income, we have no reason at all to assume that it will (*a*) prevent in any way the formation of an effective market for his labour, (*b*) cause an equilibrium in the market at a lower rate than would result from the same quantity of labour being offered by workers to whom the marginal utilities of income were lower." I am not certain what (*a*) means; but the second *obiter dictum* does not follow if the changed marginal utility of income has altered the supply-schedule of labour. It is not at all clear whether Mr. Hutt is trying to assert that the marginal utility of income to the worker is entirely irrelevant to the problem—that it need not be included in the equations at all—or merely that it is an independent factor in the situation and can be treated as a constant. It is not even clear that this distinction is noticed.

Mr. Hutt seems hardly willing even to admit that the rate is indeterminate under conditions of bilateral monopoly. The citation from Davenport which he summons in support of his view clearly applies to unilateral, not to bilateral, monopoly; and the question in general seems unnecessarily clouded by a quibble over Jevons' phrase that in such a case "political economy is silenced." Nor will Mr. Hutt concede anything on the alleged reaction of wages on efficiency, and alleges that "in so far as low wages are due to inefficiency, the right thing to do is to tackle that inefficiency directly," whatever "direct" may mean (if the inefficiency is due to under-nourishment, is not the influence of higher wages essentially "direct"?); adding the somewhat feeble plea: "if there were anything in the idea, would not employers have discovered it?" On pp. 24–25 the author seems to score a debating point against Adam Smith only by a verbal play on "stock" and "stocks." And what a strange casuistry lies behind the following refutation of Smith's contention that "tacit agreements" among employers not to raise wages (in other words, buyers' monopoly) does not affect wages: "This does not lower the price of labour: it simply results in the farmers' demand being somewhat less than it might otherwise be, for the shortage of which he complains remains. If he prefers that 'shortage' to raising wages, presumably the existing rate is the

economic one"! On the other hand, Mr. Hutt seems to concede more than he need on p. 87 in asserting that in the short run (when capital is immobilised) "a labour combination might demand and obtain a rise of 50 per cent. in wages and yet the numbers employed hardly fall off at all." This is hardly conceivable, seeing that the rise of wages would increase prime costs and so restrict the margin of profitable production. The short-period elasticity of demand for labour can only be taken as *less* than unity on the assumption that the *entrepreneur* will lay out an *increased* volume of capital (in the shape of circulating capital) in face of a *diminished* aggregate return. Labour under such circumstances might swallow the whole product; but the product would be a considerably shrunken one.

MAURICE DOBB

Cambridge.

The World's Population Problems and a White Australia. By H. L. WILKINSON. (P. S. King & Sons. 18*s*. net.)

THIS book seems to have its origin in a feeling that the world has a right to know the facts about Australia, a country which still enjoys plenty of elbow-room, and that Australians have a need and a duty to acquaint themselves with the conditions of more crowded peoples. The author devotes his early chapters to considering first the "over-populated" continents (Europe and Asia) and then the "under-populated" continents (the Americas, Africa, Australia). But what are the tests of over-population and under-population? The author has no consistent tests. Sometimes (*e.g.* when considering Great Britain) he accepts unemployment as a test, ignoring the writings on this point of Sir William Beveridge, Professor Carr Saunders and others. If this test is valid, Australia herself would appear to be an over-populated country! Sometimes he advances the idea of the optimum, without analysing it. Very frequently he accepts the criteria of American geographers like Professor East, and argues according to the rainfall map and soil productivity. In the last resort he seems to consider that over-population is relative not only to natural resources, but also to the existing economic organisation of a country and its conventional standard of living. This makes the problem extremely relative, but it is when the author treats it in this way that he achieves the most satisfactory results. It will be apparent that the book makes no theoretical contribution to population questions, and that whatever merits it has are descriptive. It contains a good deal of statistical

information, culled from Year Books and similar sources, and has many interesting maps. It will leave Australians with the feeling that they cannot be indifferent to the needs of two countries in particular—Italy and Japan.

A chapter on the technical aspects of migration in the modern world makes it clear that the needs of these and similar countries cannot be solved by exporting people to food, but must be solved by importing food for people. Their problem, therefore, is one of production and markets. Mr. Wilkinson would like Australia (and other countries similarly situated) to modify their policies of economic nationalism, and co-operate with the "over-populated" countries by accepting their goods. He does not hide his fear that, unless this is done, war will be in the end inevitable.

The second part of the book considers, in the light of geography and history, Australia's capacity to contribute to a solution. Mr. Wilkinson estimates that Australia should be able to hold, at the existing standard of living, something over twenty million people. He deals correctly with the economic factors of population increase in Australia, and describes and defends what is unfortunately known as the White Australia policy.

This book will serve a useful purpose in Australia. But it covers far too much ground to deal satisfactorily with any of the many topics it touches on. The serious student would gladly exchange it for a scholarly inquiry into the population questions of a single country such as Japan. But it is a welcome sign of the growing attention devoted to these questions.

W. K. HANCOCK

University of Adelaide.

New Zealand in the Making: a Survey of Economic and Social Development. By J. B. CONDLIFFE, D.Sc. (London: George Allen and Unwin. 15s. net.)

"IT is, unfortunately, only too easy to approach economic history by way of politics." There have been many books, and some quite good books, about Australasian "socialism," but Professor Condliffe has achieved something better. He is not content to regard New Zealand as a museum of social democracy, but makes all the stages of its growth intelligible by explaining their relation to a world-economy. He finds his first clue in an inquiry into price movements. It was the demand for primary products which followed the discovery of gold in Australasia in the 'fifties which first set New Zealand on her course as an exporting country. It was the flattery of rising prices which

tempted her into the boom of the 'seventies, and left her (when prices fell) in the depression of the 'eighties and early 'nineties. And it was the almost uninterrupted favourable movement of prices between 1895 and 1921 which conditioned the "economic revolution" whereby New Zealand achieved that yeoman society which contrasts so emphatically with contemporary Australia and the New Zealand of an earlier generation.

The second clue to New Zealand's economic history must be sought in her economic geography. "The whole history of New Zealand has been shaped by its isolation, its forests, and its mountains." One should add (to drive home the contrast with centralised Australia) its rainfall. Professor Condliffe devotes the first pages of his book to sketching New Zealand's economic environment, and some of his best chapters describe the processes by which the New Zealanders have mastered it. He insists, rightly, that it is not legislation, but the successful organisation of the primary industries, which accounts for New Zealand's enviable prosperity. The first great successes were won in the production of wool, and were due to improvement in pastures, attention to breeding, and efficient technical and commercial organisation. "All of the essential features of mass-production, usually credited only to the newer factories in America, are to be found in a well-organised shearing shed, and most of them anticipated and owe little to Henry Ford." When the success of refrigeration in the early 'eighties made possible a new sort of farming aiming at both wool and meat, the freezing works adopted similar methods of high organisation, piece-work, specialised labour and grading. And, in the twentieth century, the dairying industry improved upon past experience. Its basic unit is the family-farm, which sends its products to large mass-production factories. The link between the two is found in a well-organised system of rural co-operation. In this system the State plays a valuable part, by insisting on grading and high standards of quality. Professor Condliffe suggests that the educative value of this system is perhaps its highest service to New Zealand.

Having insisted that the governmental policies for which New Zealand is disproportionately renowned are of subordinate importance, Professor Condliffe is free to do justice to them. If one expresses surprise at seeing so wide an extension of State paternalism in a country where land and comfort are so widely distributed, the answer is, that this "distributivism" is less than half a century old. Barely fifty years ago, New Zealand's democracy, like Australia's, was clamouring in vain for land.

Wool, which in 1880 was the predominant exportable product, favoured large-scale ownership. A bad policy of land tenures had aggravated the tendency to monopoly. The masses of New Zealand were (temporarily) shut out from the land as completely as were the masses of Australia. This is the chief reason why they pursued similar policies of tariff protection, union organisation, industrial arbitration, land taxation and State paternalism. It was the capacity of New Zealand to take advantage of rising prices by means of the small-farm, large-factory technique (especially in the North Island, which has long since made up the ground lost in earlier periods of settlement) which eased the situation, and slackened the pace of State action. New Zealand, unlike Australia, has made a "get-away." It had become clear before the war that "the socialistic impulse had been lost, and the subsequent period has seen both legislative and administrative revision of the major experiments." Mr. Condliffe, however, insists that these experiments served their turn in the economic deadlock which existed in 1890. Governmental action was not the main cause of the improvement in the country's fortunes, but it helped the country to make the best use of its great opportunities.

The book contains chapters dealing with the economic status of the Maoris (a most interesting topic), borrowing for development, the economic functions of government, State regulation of wages (which the author defends against its critics) and "maternal legislation." There is also a chapter on foreign affairs and a concluding chapter devoted chiefly to New Zealand's educational system. The extreme gloom of this chapter comes as a surprise, and makes one wonder whether Mr. Condliffe would not have been better advised to keep within the limits of economic history. His matter is good, but the reader is unprepared for it, since the author has not prepared the bases for a social criticism. The defect of the book, indeed, is that it has not been altogether fused into a unity. Its chief merits are those of solid scholarship. The student will learn more from it than from any other book about New Zealand, and it is a real contribution to the economic history of the British Empire.

W. K. HANCOCK

University of Adelaide.

The Economic Policy of Soviet Russia. By PAUL HAENSEL, LL.D. (P. S. King & Son. London: 1930. Pp. 190. 7*s.* 6*d.*)

WHEN still at the University of Graz, in January 1930, before leaving for the North-western University, where he is now Professor of Public Finance, Dr. Haensel presented the English public with this exceptional summary of Russian affairs. He has condensed an immense quantity of data as it could be done only by one who for a quarter of a century has been familiar with Russian financial conditions and, what is still more valuable, for ten years with the present Communist experiment on the spot. Though here and there more recent figures are available, any other interpretation of the official material will remain inferior to the work of Prof. Haensel, for the obvious reason that none of the writers on the subject approaches him as regards knowledge of the intricate background. Therefore everyone who attempts to understand what the Russian figures mean ought to clear his mind by going through Prof. Haensel's survey. Even where the condemnation of the present régime is in the foreground, the admirers of "efficient intolerance" will admit the technical economic value of the objections.

The general survey (Chapter I) and the chapter on present conditions, about one third of the book, are an unhesitating condemnation of the methods of fanatic force, applied by the present rulers without any economic benefit to the country. Many a foreigner will blush when reading the succession of paragraphs beginning with "a foreigner is told."

The chapter on "Agriculture" has been superseded, but, how far, is still to be seen. The remaining six chapters ("Industry," "Economic Position of the Working Class," "Internal State Trade," "Monopoly of Foreign Trade," "Transportation," "Public Finance," "Currency") will remain less affected by the measures taken in the course of this year.

Very much up to date is Professor Haensel's view of the Five Year Plan. It is well known how anxiously it is viewed by all who believe in or disbelieve Soviet orders. Haensel is encouraging for the believers. To put it in a nutshell, the Five Year Plan amounts to a seven or thirty years war against the Russian consumer. The progress of industrialisation as contemplated is probable, if no internal or international crisis supervenes. But the increase of output by fifty per cent. or more in the key industries will still leave the Russian people under a régime of

appalling privation. Hence orders will continue to be directed towards the countries which keep on friendly terms with the Moscow super-capitalist.

The compact and fascinating summary of facts and figures arrayed under the headings noted above leaves the reader with one impression, which seems unanswerable. As far as economic considerations go, the communist *modus procedendi* and communist economics are impeding, and have impeded the rhythm of economic progress, which has been both more rapid and less exacting for the majority of the population during the period prior to the Great War.

Therefore nobody should be carried away in favour of communism on economic grounds. Its economics offer immediate economic advantages, to a point, to the Russian industrial workers, after all a minority, greater advantages to foreign foremen, advisors and experts, and even "foreign professors (among them twenty professors from Germany) at a time when native professors of long standing and experience are deprived in large numbers of their chairs"; none at all to the great masses of the peasantry.

Every statement contrary to the above-mentioned is based either on miscalculation or deliberate trickery, as, for instance, the classification of taxes as "direct" when actually "indirect," like the important industrial tax, the calling of whole institutions and measures by misleading terms as "co-operatives," "trade unions" and "loans," the submission that the fixed official prices are the real prices and that the chervonets ruble is really equal to two shillings. With regard to the prowess of "The Giant Farm" displayed on a London film, Haensel refers the reader to the Soviet paper information as to the difficulties of utilising the 35,000 tons of hay collected on that farm; no cattle to consume it on the spot and no transport to convey it where it might be useful.

Haensel's data do not reach beyond March 1930. The substantial part of his argument will, as noticed already, preserve its value, but the purely economic approach will not prove more effective with regard to Communism than it has been on the part of others with regard to Fascism.

Besides the very substantial economic interests which will continue to consider the demand on a large centralised market, there is still a potent intellectual interest which proves a real support for the present Moscow dictator. The reader who is anxious to study the peculiarities and implications of integrated

State economics will value the work performed by Professor Haensel with regard to the only large-scale experiment of the kind.

A. MEYENDORFF

The Economics of Forestry. By W. E. HILEY. (Oxford: Clarendon Press. Pp. 256. 21*s.*)

THIS work forms one of the Oxford Manuals of Forestry, and the author, Mr. W. E. Hiley, states in the Preface that it is founded on courses of lectures given at the School of Forestry and the Imperial Forestry Institute at Oxford. The subject-matter dealt with is, says the author, "as yet in an elementary stage." Those acquainted with the various volumes of Schlich's well-known and long-used *Manual of Forestry* will find some difficulty at first in placing Hiley's *Economics;* or, perhaps, in admitting to the full that the subject is in "an elementary stage." On the Schlich *Manual* analogy this book is a compound of parts of the volumes on Forest Valuation and Management (III) and Forest Policy (I). As the author says, the book is chiefly devoted to a discussion of timber resources and the economics of cultivation. There is nothing to cavil at in this and the work has been admirably achieved. But the summary rejection, in a text-book, of most of the accepted formulæ appears scarcely justified by the following arguments: "The study of Forest Economics necessarily entails a good deal of mathematical calculation. Such calculations involve two processes: firstly, the construction of formulæ, and secondly, the determination of values of costs and income which can be inserted in the formulæ. The formulæ can be deduced from simple mathematical principles and, with a little ingenuity, their number can be multiplied to an almost unlimited extent; but the determination of the figures to put in these formulæ demands patience and systematic costings, and it is in respect of such data that the subject is deficient. Those who have had to teach Forest Economics have propounded general principles, and beyond this have had little more than formulæ to present to their pupils, so that the subject has come to be regarded more as a mathematical exercise than a branch of forestry." I doubt the author finding general agreement amongst experts with this statement; but he wishes to break away from this tradition; he says he has concentrated upon practical problems of forestry and introduced formulæ only as they are required for the solution of these problems. This treatment leads to omissions. For instance, he states, "I have said nothing about

the selection system of forest management because I have been unable to find any reliable data on which to estimate profitableness under this system; and many of the classical formulæ of 'forest valuation' have been omitted." These are serious omissions. A very considerable proportion of the forests of the British Empire are managed, and will continue for a long period to be managed, under some form of selection system. On the subject of the formulæ the author apparently had some qualms, for he writes (p. 5), "but the omission of some formulæ which may in the future prove to be useful is considered as a lesser evil than the inclusion of numerous formulæ which are not used." But if the student, the forester of the future, is not taught or told about these formulæ "which may in the future prove to be useful," how is he likely to be able to judge of their subsequent value when he in his turn takes up the reins?

The fact that the existing methods of forest management have been evolved under a system of State ownership has allowed foresters, says the author, to adopt a less strictly financial view than the managers of other industries. They have been guided by social rather than economic requirements, and their policy has been determined not by a desire for gain, but by a fear that the welfare of peoples might be jeopardised by a failure in the supply of forest products, especially firewood (and, he might have added, grazing), and by a belief that land which is unsuitable for other purposes should be made as productive as possible. The case for forestry has been based on the objective of general human welfare rather than financial gain, and emphasis has been placed on the indirect benefits which forest maintenance often confers. The direct money returns from forestry do not give a fair picture of the benefits that are derived from the industry, and, consequently, the financial side of forestry has been frequently neglected. The public, continues the author, do not like to hear about the small rate of interest that can be earned in forestry: forest economists are therefore unpopular, and have been denied any important share in the determination of forest policy, and the study of economics has been treated with respect only so long as it remained academic.

There may be some truth in these contentions if they are applied to Great Britain and certain parts of Europe; but their application to a great part of the British Empire is quite another matter. In innumerable cases, *e.g.* in certain parts of India, even after seventy years of forest conservation, and in many parts of the Dominions, Protectorates and Colonies for many

years to come, social rather than the economic requirements as understood by the author will prevail. The welfare of the people will have to be ensured by the provision of those requirements essential to their daily life—fuel, grazing and so forth—and the true financial return from the forest area, *i.e.* the forest economics of the area in their truest sense, will be the deciding forest policy. Timber forests and timber finance are very far from being the only *raison d'être* of a true forest policy for the British Empire. A reference to the Linlithgow Report of the Royal Commission on Agriculture in India, 1928, would have displayed this fact to the author.

This text-book must therefore be regarded as more strictly applicable to the forests in certain parts of Europe (the author gives Finland a rather disproportionate place), and perhaps certain of the larger timber forests in the tropics, than of any general utility in the management of the greater bulk of the forests of the British Empire.

As regards the profits in forestry (the ugly word "profitableness" is used throughout the book), instead of the usual method of estimating either the rent on the land to which the returns from forest cultivation are equivalent, or the rate of compound interest which such returns represent on the capital invested, a new method is introduced. This estimates the actual cost of production per cubic foot of timber trees of various species and sizes when certain rates of interest are charged on capital. The method is new, and, as the author admits, "too new to have been employed very widely even in this volume."

The book is divided into two parts, the first dealing with Timber Supply, Consumption and Price; the second with the Profitableness (or, better, Profits) of Forestry.

The author marshals his facts, based on Board of Trade statistics for various parts of the world and on those from other authors, very well and sums up the differences between various estimates of World Supplies—differences often due to the careless employment of the terms "gross increment" and "net increment." He points out that little reliability can be placed on the "guess" estimates of the volumes present in the tropical forests of the world; though he agrees that Fraser Story's estimate of the volume of timber in the N. Russian forest area is faulty—and this is the opinion of several eminent Russians as well.

But from the Empire point of view it must be repeated that this Part lays too great an insistence on Timber (including pulp, etc.) as the chief *raison d'être* of a forest management or a forest

policy, and that thereby the true finance of the Empire forests is left out of all account and a distorted impression of the position thus given.

In Part II, the Profits of Forestry, the author divides his subject into: The Rate of Interest, Cost of Forest Operations, Income from Forestry, Methods of Estimating Profitableness in Forestry, Financial Analysis of a Money Yield Table, Cost of Producing Timber, Comparative Profitableness of Various (European) Species, the Influence of Profitableness of Quality of Site, Density of Planting and Thinning Grade, the Financial Rotation, and the Economics of Sustained Yield: with some Appendices, including Compound Interest Tables, Yield Tables from British, Continental and American sources.

The omissions, deliberately made, from this part of the book have been already commented upon. The Part is perhaps unduly stressed by the fixed and rather rigid idea of the paramountcy of the financial factor in Forestry. Want of space must preclude a detailed analysis of the various chapters in which the author displays care and ability. One point, however, should be made. In Chapter VII, under Method of Costings, it is said, "the method of costings is now employed throughout all modern business administration." This is true, but in Forestry it should be introduced with discretion. After the War, in several big forest undertakings in India the Department was told to introduce systems of costings on purely business-like lines—just as if the Forest Department with all its greatly varying work and duties, some by no means introduced to produce a direct monetary return as in the case of a big commercial business, could show accounts of this type as a purely financial concern. Great modifications had to be introduced into those costing accounts. The author's examples are chiefly confined to Europe, and mainly to areas under afforestation, *e.g.* Britain. A single division in India would have shown a different state of affairs and would have introduced serious complications into the Costing Accounts here given as illustrations.

It is somewhat difficult to adjudge the position this book may take in forest education. The failure to recognise the enormous importance of the indirect values of the bulk of the forests of the British Empire and the omission of all treatment of the selection system seem to point to its limitations as a text-book.

E. P. STEBBING

University of Edinburgh.

The Reclamation of Exmoor Forest. By C. S. Orwin. (Oxford University Press. Pp. 172. 10*s.* 6*d.*)

At the Meeting of the Council of Agriculture in October 1930 the President-Elect of the Royal Agricultural Society commented upon the fact that many people nowadays, with no pretensions to actual practical knowledge, proffered advice on agricultural matters. He pointed out that it was dangerous to argue, as many do, that because a scheme or method had been a success or failure in some part of the globe it must equally prove a success or failure in Great Britain. British farmers have been told that they should study and copy methods in force on the Continent of Europe, in Australia or America, North and South, and even as close as Ireland, quite irrespective of the fact that in every country, and often in certain definite parts of a country, a special form of cropping has been developed by trial and error best suited to the existing conditions. Those who have given thought and practical study to the matter are aware that the same applies to forestry; much money has been frittered away in different parts of the world by the introduction and planting of species which have proved failures, economically, in their new environment. The "get-rich-quick" theory is as impracticable in agriculture and forestry as in other walks of life. Both require sheer hard work, practical local knowledge and great patience to achieve successful results.

As an example of perseverance, trial and error, and ultimate achievement, it would be difficult to find a more fascinating record than the story of *The Reclamation of Exmoor Forest.* In order to understand the magnitude and extent of the Exmoor reclamation it is necessary to realise the progress of agriculture in England. This is well epitomised by the author in the following:—

"The making of the land of England has been, for the most part, a slow and often a painful process. . . . 'Land' was added to 'land,' and 'furlong' to 'furlong,' to provide sustenance for the self-sufficing local communities which went to make up the nation before the dawn of industrialism and the advent of farming for profit.

"With the spread of the inclosure movement and the allotment of the common lands in the later eighteenth and early nineteenth centuries, coinciding as these changes did, very largely, with a prolonged spell of high prices for agricultural produce, consequent on the disturbed state of Europe and the demands of the growing urban population, the reclamation of the waste

lands of England came more and more to be dictated by the chances of profit, and to depend less and less merely upon the needs of an increasing rural community. No doubt the two processes went on simultaneously, the small, slow, and laborious inroads into the wild by the peasant cultivator seeking to increase the family food-supply, of which ocular demonstrations are provided in every hill-district of England, and the larger, more ambitious, better-directed schemes of the greater landlords for the exploitation of large areas formerly regarded as below the margin of profitable cultivation; but it was through the latter, rather than the former, that production from the soil was made to keep pace during, say, the century following the year 1750, with the need created by the rapid development of a great, non-agricultural, consuming class. In very many districts large areas of heath and moorland were brought into cultivation, and in others the drainage of tracts of water-logged land put a great acreage of potentially fertile soil under the plough. The increase and spread of knowledge of new methods of cultivation, of new crops and of engineering, leading to drainage and to the successive steps of paring and burning, of claying and marling, root-growing and sheep-feeding, and to the four-course system of farming, perfected, in Norfolk, by the invention of the drill and the horse-hoe and the use of crushed bones and rape-cake, to which the economic conditions generally prevailing applied the stimulus of self-interest—all these things combined to bring about results, during this period, which have no parallel in agricultural history before or since."

Amongst the great reclamation works undertaken, the names of the Dukes of Bedford are connected with the drainage of the Ouse Valley, and Coke of Norfolk with the great agricultural estate at Holkham made out of land where formerly there was only "one blade of grass and two rabbits fighting for that." In the words of the author: "It comes with something of a shock to realise how recent, historically, most of them (*i.e.* reclamation works) are. . . . Roads, fences, drains, ploughland, grassland, woodland, homesteads and cottages, all of which are accepted to-day . . . owe their being, in many cases, to the courage and enthusiasm, no less than to the business acumen, of landlords and farmers hardly a hundred years dead." Of course there are parts of England to which such a statement does not apply, areas which have been in much the same condition (grasslands and woodlands) for over a couple of centuries and more, with farmsteads or small manor houses and cottages all of one age.

The end of the eighteenth century was a period of general agricultural improvement, the Board of Agriculture being instituted about 1791. The Reclamation of Exmoor is mainly the history and work of John and Frederick Knight, father and son, between 1815 and 1897.

Previous to the Act of Inclosure, 1816–1819, Exmoor was a Royal "Forest," though there were few trees (thirty-seven in number only), the area being mostly utilised from a long period back for summer grazing, and having the usual claims to rights of fuel, local grazing and so forth over it. A local proprietor, Sir T. Acland, had a lease of the forest and owned the tithes, and a few other proprietors had special rights to parts. The Commissioners of Woods, Forests and Land Revenues had been appointed by Act of Parliament in 1810, and when Inclosure was determined upon they were appointed to make a survey of the forest, and presented their report in June 1814, just prior to the termination of the Acland lease. One of the clauses relating to the King's Claim is of considerable interest, indicating that afforestation was in the forefront at this period. It reads: "Such Allotment, or such portions thereof, as may be found to be adapted to the growth of heavy timber, to be afterwards appropriated for that purpose, or to be disposed of by Sale, and the money appropriated to the purchase of other land for the growth of such Timber, as may be then considered to be advisable." On the Inclosure being sanctioned, the division was made: the King twelve twenty-seconds, Acland one-eighth, leaving about one-third for the other parties. The total area of the forest was 20,122 acres. The final award was made in 1819, and Exmoor ceased from that date to be a Royal forest. John Knight of Worcestershire purchased the King's portion of the forest, and subsequently acquired several of the other parts. Mr. Knight paid £50,000 for the 10,000 acres of the Crown's property. Acland and Lord Fortescue also made bids. It is of interest to note that the descendants of Acland and Lord Clinton, one of the other proprietors with claims, have been prominently associated with the present-day afforestation work in Great Britain. Except for one small farm at Simonsbath, built about 1654, the 20,000 acres of Exmoor were at this time a complete waste, untouched by man. Except for the one farmhouse, there was no habitation on the area, which was only traversed by a few ancient tracks. There were no fences, the boundaries being marked by stones, barrows, trees, streams and so forth; moreover, it was extra-parochial, and except for the Swainmote Court

and the Innkeeper's licence, held by the tenant of the farm, there was a total absence of social institutions.

Those who motor through Exmoor nowadays will see very different conditions, and it has been the object of the author to trace how these conditions have materialised. And fortunately, though not complete, sufficient data were extant to provide the author with a drama of vivid interest, whilst at the same time it portrays the landlord, farmer and agricultural worker at their best, in a fight with inclement and, to some extent, unknown conditions.

John Knight also treated for the mineral rights, and these were granted by the Crown, although they were not actually conveyed till 1855 to his son. The family of Knight had been iron masters in Worcestershire and elsewhere for over two centuries, and F. Knight, at a later stage, spent a good deal of money in endeavouring to develop the iron ore deposits on Exmoor, but without success, as the deposits were not workable at a profit. At the time of Knight's purchase the only value of Exmoor lay in the summer grazing, and from Lady Day onwards in every year flocks of sheep to the number of many thousand head had converged on Exmoor from more than half a hundred parishes in North Devon, for pasturage on the summer grass.

For those who wish to follow stage by stage the development of the work on Exmoor a perusal of the book is necessary. Here a brief summary will be attempted. The first period relates to the years 1820–1841. Briefly during this period John Knight attempted to exploit the property at first hand. He did not contemplate the creation of tenant farmers holding their farms from him. As the land came under cultivation the necessary buildings for live and dead stock were erected, but no farms were carved out and let to tenants. As for reclamation, he believed that large portions of the forest lying on the southern slopes could be brought under the plough, and he persisted in the attempt to establish something like the four-course system of farming long after it had been shown to be a failure. In other words, he endeavoured to farm at an elevation of 1200 ft. on the same lines as he had farmed in the Midlands at a little above sea-level. The steps by which he proceeded to convert land in a state of Nature into tillage were skilful and economically sound, but he failed to realise that he should have evolved a suitable crop rotation. As regards the grazing areas and those he was not ready to till, he sought to increase the value by the importation of live stock of other than the indigenous breeds, and particularly by

increasing the cattle stock. Important results matured at a later date from the varieties of sheep he imported, and he originated the business of summering cattle from the lowland districts, which ultimately grew to very considerable proportions. But his mistake was to have made no effort to colonise the forest during the period. By 1842 he had built two farms and about eight cottages, and had only two tenants, the innkeepers at Simonsbath and Red Deer. In 1820 the only residents on Exmoor were a family of five at Simonsbath. The number had but little increased by 1842.

In 1841 John Knight gave up the management of the forest to his eldest son, Frederick, and retired to live in Rome, where he died in 1850, though his interest in Exmoor never flagged.

The next period, 1842–1850, was marked by a definite change in policy. F. Knight determined to erect farm buildings and secure tenant farmers at low rents, the lessees of necessity being strangers to the conditions—mostly coming from Wiltshire and Dorset at the start, being tempted by the low rents and the fact that there were no parochial rates to pay. It is of interest to note that even at that day the use of home-grown timber in the construction of the houses was forbidden by Knight. "No English Fir for me," he wrote in one of his building specifications.

To assist him in his new projects, Knight secured the services as agent of Robert Smith, appointed in 1848. Smith took over a new farm, Emmett's Grange, of 670 acres, which he occupied as an ordinary tenant. Smith came from Lincolnshire, where he had made a great reputation as a practical farmer, and was a Member of the Council of the Royal Agricultural Society. He contributed papers to the Journals of several Societies, based upon his own practical experience. Smith divided the land on his farm into three categories: (1) the hill-top and other rough land to be used as summering for young cattle, store sheep, colts, ponies, etc., to be subsequently improved by surface drainage; (2) the portion lying immediately below the rough wet ground or situated on a southern aspect, to be utilised as arable land; (3) the low-lying flats and marshes in valleys and on portions of adjacent hillsides, to be laid out for pasture and water-meadows.

The laying out of the farms had made the cost of fencing of the new inclosures a serious one, and the tenants were now made responsible, the materials being given; the tenant had to cart materials and build the fence, being allowed six shillings per chain from his rent for all fences built. The fences were earth banks faced with stone on each side to a height of 4 feet, and

finished with two grass sods, making the fence full 6 feet high. It was then planted with a double row of beech plants upon the crown, protected on either side at first by "wreath," and later by strands of wire. A nursery was for long maintained on the estate to grow the beech plants required for the fencing. By this time plantations were also being formed to provide shelter. In 1850 no less than £16 were paid for beech nuts.

As regards the treatment of the land when broken up, the methods adopted varied. The ground was broken up by bullock- and horse-team ploughs, steam being utilised later. Lime was a great factor. A great many experiments were made in the treatment of peaty lands. Costs are given showing the expense incurred by the various treatments, for which reference must be made to the book.

To Gerard Spooner, who had the Wintershead farm for six years, is due the credit of having introduced during this period a system of farming on the forest which, although it fell into abeyance after his departure, was revived twenty years later, and is now the most permanent and important feature. Spooner's farm was occupied as a Scotch sheep farm, with flocks of Cheviots and black-faced sheep. "It is well known that the Cheviots thrive best where the grass is green; the black-faced will do where there is little but heather. This tenant, who has Scotch shepherds and Scotch collies, is endeavouring to introduce the Scotch system of selling his lambs every year in the autumn. The total ignorance of the surrounding people of the existence of any sheep except their own native breeds is a great obstacle to this plan, but if it succeed it will be a capital thing for the country." Knight was much interested, as he had still some 6000 acres of open land unoccupied. The plan did not meet with success at the time, but, as has been said, proved a marked success when revived. And descendants of some of the old Scots shepherds still reside on Exmoor.

Smith had soon recognised the impossibility of growing wheat and barley on Exmoor. He realised that the development of farming there depended on intensifying its long-established capacity to carry stock. Thus root-growing with rape and rotation grasses became the main objectives. Oats were only grown to be chopped as winter feed for horses and cattle (see pp. 74–77 for Smith's methods). Dairy-farming and cheese-making were tried, but ultimately given up. By 1850 the forest must have presented a pleasing sight. All down the valleys were the signs of activity: inclosures being fenced, buildings being erected,

plantations being made, and the plough teams breaking up the soil. There were many ups and downs, however, during 1851–1866—farms being given up by tenants, and failures, with some cases of litigation. Knight developed a policy of keeping certain farms in his own hands, since this was necessary to the fattening out of the produce of his own flocks. The high-water mark of the progress in reclamation and farming had been reached by about 1880. F. Knight had lost his only son in 1879, and it is said that from that day he worked his steam ploughs no more. By this time the forest had settled down to a state of more or less stabilised agriculture. Exmoor had been made into a parish, a church built and a curate appointed. At the time of Knight's death (he was an M.P. and had been made K.C.B.), some three hundred people were settled on Exmoor. He had sold the reversion of the estate to Lord Fortescue. The latter had more fertile and lower lands in the neighbourhood, where he could winter his own stock. So the last phase in the policy of Exmoor has been to let off all lands for which tenants could be found and to apply to Exmoor, except for the great sheep-ranching enterprise which has originated from Spooner's first example, the traditional principles of English estate management.

Much more could be written on this wonderful piece of work. To the forester it will be of interest to know that the plantations formed by Frederick Knight were bought and felled by Government during the Great War.

Summing up the work of these pioneers, the author says, "Without doubt the reclamation of the forest by them was one of the greatest achievements, of its kind, that the nineteenth century has to show."

E. P. STEBBING

An Economic History of Great Britain: The Early Railway Age, 1820–1850. By J. H. CLAPHAM, F.B.A. Second edition, 25*s.*

THE first edition of this book was reviewed in the ECONOMIC JOURNAL of June 1927. No important changes are made in the text of this new edition; but in a brief Preface, Professor Clapham, replying to the criticism of Mr. Hammond, that he had formed a "happy impression" of the period, still maintains that "excessive concentration on the shadows of the historical landscape has led historians to ignore the patches of sunlight."

The Age of the Chartists: a Study of Discontent, 1832–54. By J. L. HAMMOND and BARBARA HAMMOND. (Longmans, Green & Co. Pp. 386. 12*s*. 6*d*. net.)

To students of social history the publication of Mr. and Mrs. Hammond's book is an event of first importance; for the interpretation of industrialism given in their earlier works is here extended to the period between the Reform Act and the outbreak of the Crimean War. The book differs in some respects from its predecessors. Much more detailed information is now available than when the pioneer "Labourer" volumes were being written; and the later period, with its wealth of official and unofficial inquiries, is more susceptible of statistical treatment. Generous concessions are made to those who hold that the Industrial Revolution increased, and did not decrease, the material welfare of the masses; and if the controversy as to what really happened to wages and conditions of labour is not finally composed, its limits are now more closely defined.

But to agree that the wage-earners were not in worse economic circumstance is not to admit an improvement in the quality of their life as a whole. Mr. and Mrs. Hammond make extensive use of the statistical evidence; but, unlike the economic "osteologist," they are dealing, in the main, with imponderables. Their concern is with the problem of discontent, and discontent is subjective. They traverse a region where historical imagination and insight into the minds of the workers are of more account than economic analysis or facility in the handling of numerals.

The problem they set themselves is to explain the unrest of the second quarter of the nineteenth century. Discontent was, no doubt, common in earlier generations, but it did not knock so loudly at the door of privilege; it was not so organised or so sustained. Possibly the more acute manifestations of the later period are partly to be explained, as the authors admit, by the improvement in the standard of life, for it is rarely the very poor who rebel; possibly it was that the rise of education and a provincial Press enabled the workers to voice grievances that had not hitherto been made explicit. But convincing reasons are given for the belief that there were other elements in early nineteenth-century society that made the wage-earners conscious, as never before, of their inferior status.

An early chapter is given to social life under Græco-Roman civilisation, when, it is argued, the edge of the class struggle was blunted by traditions of civic beauty that were not confined to

the rulers, by an efflorescence of voluntary associations, and by a common enjoyment of things of the spirit. Against that morning sky the chimney-stacks of nineteenth-century industrialism stand out bleak and grim. A new population was being drawn from the country to the towns, and the squalor—emphasis is rightly laid on this—was enormously intensified by the Irish influx. The institutions of local government, both before and after their reform, are subjected to close scrutiny, and the medicine of the new Poor Law is carefully analysed. There follow graphic accounts of the physical appearance and insanitary conditions of the new towns; of the loss of playgrounds; of the consequences of the Beer Act of 1830; of the facilities for education—a long chapter concerning controversies, the echoes of which still ring; and of the inadequacy of the contribution of the churches to the task of civilising the industrial classes.

Of Chartism itself relatively little is said, for the melancholy story of bad leadership has already been told often enough. But the movement is treated broadly as the protest of the English poor "against the place they occupied in the raw industrial settlements spreading over the North and the Midlands." The class-conflict of the 'fifties was less acute than that of the 'thirties, it is suggested, partly because of the decline of the hand-loom weavers, and partly because of a "general civilising movement." It was distracted, moreover, by a cross-current arising from the quarrel between the manufacturers, supported by the Nonconformists, and the landlords, supported by the Church, concerning the Corn Laws and the Ten Hours Bill. A purely economic phenomenon which must have tended to the same end was the improved trade that followed the upward movement of prices; but of this nothing is said.

The period under review was not one of what Gissing called the sunny patches of the world's history. Puritanism still cast its long shadow over the workers, and individualism, on the whole a salutary force in business, exercised in other fields a blighting influence. The arts of government develop less rapidly than the applied sciences; and, at this period, the forward rush of industry was not matched by a corresponding advance in the technique of control. Mr. and Mrs. Hammond lay stress on the ease with which the successful industrialists escaped to the country and founded territorial families: their wealth was not available for the adornment of the towns from which it was drawn; and thus, for the workers, "essential instincts were left unsatisfied."

The book is at once scientific history and high art: it abounds, as might be expected, in swift phrases and pregnant reflections. "A bad beacon, he was an admirable searchlight," could hardly be bettered as a summing-up of Edwin Chadwick, administrator and investigator. But the temptation to quote must be resisted. Only one minor error of fact—a confusion (on p. 346) of the firm of Mather and Platt of Manchester with that of Hibbert and Platt of Oldham—has been detected in this scholarly and illuminating volume.

T. S. ASHTON

The University, Manchester.

Women Workers and the Industrial Revolution. By IVY PINCHBECK. (London: George Routledge and Sons. 1930. Pp. 342. 15s.)

MISS PINCHBECK's book gives an extremely valuable and detailed insight into the position of women in agriculture, industry, mining and trade in the period from the middle of the eighteenth to the middle of the nineteenth century. Not least interesting are some of the incidental examples which she has brought to light of the enterprise of business women in such unexpected professions as those of bone-setter, maker of anatomical stays and stage-coach proprietor.

Most of the book is, however, concerned less with such intriguing curiosities than with the fortunes of the ordinary woman worker in town and country. During the upheavals of the Industrial Revolution, as later, it appears, women's labour was chiefly important as a kind of supplementary reserve in agriculture and industry, eking out family earnings where the man's wage was insufficient, and finding employment where men could not or would not go. In agriculture, for example, we meet first the cottager's wife, keeping pigs and geese and poultry on the commons; then (after the loss of the commons) the woman day labourer working in gangs or under the bondage system; and finally the rate-supported wife of the old Poor Law, destined once more to be flung back on the labour market after the 1834 Act.

In her chapters on industry Miss Pinchbeck deals in detail with the textile trades, with mining and with the smaller domestic trades such as glove-making, straw-plaiting and button-making, and shows how, when the basis of these industries was undermined by the coming of mechanical production, it was where men were too conservative or too resentful of discipline to accustom themselves to the new conditions that women found employment in the

factories. Victorian prejudice, it is true, preferred that women should lose their means of living rather than leave their homes to go out to work; but, fortunately for the women themselves, the defenders of nineteenth-century feminine virtue were not sufficiently interested in the working class to press far the attempt wholly to exclude women from factory employment. And there were others for whom the appearance of women in the factories was hardly less fortunate. Women spinners, we learn, stimulated the industry of the child piecers employed to assist them by the promise of marbles and tops instead of by the customary beatings.

The book makes it clear that the larger problems of women's work and employment were never clearly conceived in the Industrial Revolution. How far did women's earnings in the long run merely reduce, when they were intended to supplement, the wages of their husbands and fathers? How could the single woman and widow live in competition with the married worker whose earnings formed part only of a family total? To these questions theory gave no answer. One fact, however, stands out clearly from Miss Pinchbeck's story. The dependent family is in the main a nineteenth-century creation. According to a contemporary report of the early nineteenth century, a wife "who is no longer able to contribute anything to the general fund of the family sits down . . . in a kind of despondency . . . conscious of rendering no other service to her husband, except the mere care of his family."

Miss Pinchbeck's book is difficult to summarise, for the author has written scarcely a sentence that does not make some definite contribution to our knowledge of her subject; but it combines in a way that is by no means common the qualities of a work of first-rate scholarship with those of a vivid human document.

BARBARA WOOTTON

Illustrations and Proofs of the Principles of Population. By FRANCIS PLACE. Introduction and critical and textual notes by NORMAN E. HIMES. (London: George Allen and Unwin. 1930. Pp. 354.)

THIS volume, we are told in the Introduction, is the first re-issue of the only substantial work that Place ever wrote. It contains his contribution to the Malthus–Godwin controversy and his own constructive proposals for the solution of the problem of over-population.

A considerable portion of the book deals with the attack on the Principle of Population, in which Godwin cites the experience of Sweden, of the United States of America and of the British Isles. The population of Sweden, in spite of the most favourable conditions, does not increase; if the population of America has increased, it has been by immigration, not by procreation; the British clearly do not multiply, since the country maintained a population of ten million souls as long as five centuries ago. All these contentions Place refutes carefully, painstakingly and in great detail. He counters the "favourable conditions" of Sweden with lurid accounts, taken from responsible eye-witnesses, of the poverty and distress that prevailed in the country. The American claim he demolishes by an ingenious marshalling of shipping statistics, which prove conclusively that little over one-fifteenth of the number of immigrants claimed by Godwin could have landed in American ports. A historical review of the conditions of England from the Roman invasion to the "present time" disposes of the contention that the British Isles supported a population of 10,000,000 five hundred years before. As for Ireland, with her mud cabins, potato gardens and squalid, teeming population, she "furnishes proofs in refutation of every one of Mr. Godwin's positions, of Mr. Booth's dissertation and of all the writers who have attempted to disprove the principle of population."

The principle of population is vindicated, but Place parts company very decisively, if reluctantly, with Malthus, who had laid himself open to the charge of prejudice in favour of the rich. Malthus' "Law of Nature, which is the Law of God," the attitude which would deny the poor man a right to subsistence when his labour will not fairly purchase it, and the suggestion that parish aid should be refused to the children of paupers who marry in defiance of warning, rouse Place to serious indignation. Malthus does not know the people, their views, their trials, their hopes and fears. Place describes his own knowledge, born of experience, in a charmingly unassuming passage which alone would have made the chapter worth reading. The people have just cause for complaint: their exclusion from the franchise, the burdensome taxes on necessaries, the iniquitous laws of settlement, the Corn Laws, the press gang. The need for reform is urgent, but reform alone will not serve. Population will continue to press on the means of subsistence, until people have learnt that their own shiftless over-stocking of the labour market is the great obstacle to prosperity. If one-hundredth or even one-thousandth part of the

pains taken to teach dogmas were devoted instead to the teaching of this truth, a great change for the better might be expected. This teaching to be successful must be done without airs of superiority or dictation, without appearance of cant. Place will have none of Malthus' prudential restraint by postponement of marriage. He considers it impossible of achievement and, were it practicable, would deplore its effects. He urges early marriage in every class of life, combined with preventive measures to limit the size of families, and he is convinced that if his advice is taken, the country will attain an increase in wealth, strength and wisdom far beyond any which has hitherto been known.

The volume contains, in addition to the text of the "Illustrations and Proofs," a number of letters addressed by Place to the Press and to private correspondents. The Editor adds that there are many others more interesting which he was tempted to insert but held over for his forthcoming history of the movement. In a short appendix on Malthus' attitude towards Birth Control, Mr. Himes points out that Malthus never took the trouble to answer Place, or to notice the sober and damaging criticism received at his hands. Here lies Malthus' failure as a social philosopher. "Fortunately where he failed, Place succeeded. Malthus' limitations created Place's opportunity." The editorial Introduction contains an able review of the movement, and Mr. Himes deserves our thanks for bringing Place's work out of its "unmerited obscurity" into the light of day.

H. REYNARD

The Life of Robert Owen. By G. D. H. COLE. (London: Macmillan & Co., Ltd. Pp. x + 350. 12*s* 6*d*.)

MR. COLE at his most readable, and a subject which repetition can hardly stale. The life of Robert Owen has been told so often and so well that anyone who looked to this volume for fresh information would assuredly be disappointed. But Mr. Cole's angle of observation is peculiarly his own, and even as a biographer he remains a propagandist. With the view that Owen was the greatest figure in the early development of British Socialism, and that he prepared the way for the great working-class movement of co-operation, no one will venture to quarrel, but when Mr. Cole asserts that Owen founded the modern Trade Union Movement, many readers will not go with him.

The book contains two excellent chapters on "Ideas in Education" and the "First Factory Act." The critics, we are told, have done less than justice to Owen's views: he did not

believe that all men were alike or equal, nor claim that they can be moulded by training into a uniform pattern. But he held very strongly that every child can be trained to good citizenship and that societies collectively are the product of existing forms of training and social environment.

Owen's scheme of co-operative villages met with even less justice than his educational ideals at the hands of his contemporaries and of posterity. The debt of the Garden Cities to the co-operative village has never been acknowledged. And as a method of dealing with unemployment and an alternative to poor relief, Owen's plan was not only sound but much in advance of the age. His views on the post-war problem of unemployment, on the displacement of men by machinery, on falling prices and wages and declining markets, are acute and far-sighted, and might almost apply to the situation of the present day. He attributed much of the prevailing distress to the fact that the workman's wages were too low to allow of effective demand for the commodities produced by him in such abundance. As a manufacturer and practical man Owen appreciated the importance of machinery and the inevitability of its extension : as a social philosopher he insisted that society could not leave the matter there.

The villages of co-operation, proposed originally as a panacea for the relief of destitution, broadened out into a general plan of social organisation. Mr. Cole describes the fatal moment in 1817 when, " for reasons which remain obscure," Owen launched his denunciation of all religions, thus antagonising the forces of established religion and placing insuperable obstacles in the path of his cherished plans. From that moment Owen lost " that firm grasp of the world of fact which had made him the greatest practical social innovator of his day." He " went a little mad " and " went on getting madder to the end of his days." Until then he had been " a great reforming man of business," making money, Mr. Cole suggests, almost against his will; now he became apparently a prophet and a visionary. What seems to emerge, probably against Mr. Cole's will, is that so long as Owen remained a man of business, with a solid background to his ideals, he rendered invaluable service. When he left his moorings to become a Socialist he also became a visionary, and though he continued to wield enormous influence, though his name long remained one to conjure with, he ceased to achieve any practical results. This is, of course, hardly the conclusion that the writer would wish his readers to draw, but it emerges very clearly from his excellent summary. There is not a dull page in the book,

which is only occasionally marred by the cynicism which Mr. Cole keeps for certain classes of the population. If it is not the last book that will be written about Robert Owen, it is at any rate one that will hold the interest of the student of to-day.

H. REYNARD

Max Weber: the Protestant Ethic and the Spirit of Capitalism. Translated by TALCOTT PARSONS, with a Foreword by R. H. TAWNEY. (Allen and Unwin. 10*s.* 6*d.*)

WEBER'S essay appeared originally in 1904; and it is a real advantage to have it in English at last, and translated so well. On its appearance it had the good fortune of initiating a discussion of the greatest importance as to the origins of capitalism, and one which has been going on ever since. It was remarkable alike as a contribution to the sociology of religion, to the history of capitalism and for the conception of history and the part played in historical causation by economic factors.

His thesis is by now well known. Mr. Tawney, who has been mainly responsible in this country for introducing us to this discussion, writes in his Foreword: "The question which Weber attempts to answer is . . . that of the psychological conditions which made possible the development of capitalist civilisation." Weber's answer was, roughly, that the ethical teaching of Protestantism, particularly of Calvinism, was the chief factor in enabling the spirit of capitalism to develop and gain full sway in modern society. That is to say, that Weber's conception of his task was from the first to investigate the ideal factors at work in the process; he defines and redefines his purpose (more especially in the notes which he added later, and are as valuable as the essay itself) as that of following out one line of inquiry in a complex web. He was concerned with the subtle affiliations of religious belief to economic activity, and not with the influence of the latter upon belief. Thus restricted his thesis becomes less exceptionable; though its bias precludes it from being a complete account of the victory of capitalism, with both factors in the proper perspective. There are evident and numerous omissions in his argument, many of which Mr. Tawney points out; for example, "that the political thought of the Renaissance was as powerful a solvent of conventional restraints as the teaching of Calvin," or, again, that the change of opinion on economic ethics was by no means confined to Calvinism, "but was part of a general intellectual movement, which was reflected in the outlook of Catholic as well as Protestant writers."

That Calvinist teaching was one very effective element in the economic revolution which capitalism brought about, nobody would deny; but it is precisely whether that teaching was the cause of the changes or the effect of them that is still being argued. And Weber clearly fails to establish that it was the cause. As to the fact, the final word seems to have been said by Pirenne, "Ce que MM. Weber et Troeltsch prennent pour l'esprit Calviniste, c'est précisément l'esprit des hommes nouveaux que la révolution économique du temps introduit dans la vie des affaires, et qui s'opposent aux traditionalistes auxquels ils se substituent" (cf. p. 8). As to the theory, even when Weber narrows it down to its finest point (as in a note p. 197) it remains questionable: "The essential point is that an ethic based on religion places certain psychological sanctions (not of an economic character) on the maintenance of the attitude prescribed by it, sanctions which, so long as the religious belief remains alive, are highly effective. . . . Only in so far as these sanctions work, and above all in the direction in which they work, does such an ethic gain an independent influence on the conduct of life and thus on the economic order." This is whittling down the claims of the "ideal factors" in historical causation with a vengeance; yet still the question remains *how far* they can exert an influence on the whole process. Doubtless, within the field set by the economic conditions, they can; but they cannot transcend it. And that means that they never are independent, but in this region subordinate.

The fact is that Weber, like a good many other people, was frightened of historical materialism, and credited it with explanations that are altogether too simple. There is (p. 55) a naïve instance of his misconception of it when he supposes that because the capitalist mentality existed in New England in an uncapitalistic environment ("the spirit of capitalism was present before the capitalistic order"), that this dispenses the causal connection implied by historical materialism. It does not need much explaining to see that this mentality had, of course, the capitalist environment of Old England behind it.

But for all that one may criticise, the book is of extraordinary value; and Weber is never better than when he is engaged in laying the spectres of other people's mistaken ideas; for example, his denunciation of the appeal to national character as generally "a mere confession of ignorance" (p. 88), or his insistence that modern capitalism is not to be explained by any stronger dose of acquisitiveness now than at any other period (cf. p. 1d). Though at the same time the subtlety of his investigation was liable to

lead him into the fantastic; as when he suggests that the Protestant ascetic denial of authority is responsible for that lack of respect in the American which is at once so irritating and so refreshing (p. 256). He was apt to forget that a motive he thought specifically Puritan is only human after all.

The Foreword which Mr. Tawney contributes is a valuable aid to understanding the problems raised by this brilliant but somewhat difficult book. Yet in it Mr. Tawney does not take us any further, as regards the main problem, than the position he had already arrived at in *Religion and the Rise of Capitalism*: a position which one may describe as an unstable equilibrium between the "ideal" factors and the economic in history. And yet there is a way out indicated by Weber's own clear distinction between the province of value-judgments and the specifically historical province where causal connection is of primary importance (pp. 98–9).

A. L. Rowse

All Souls College,
Oxford.

An Introduction to the Obedientiary and Manor Rolls of Norwich Cathedral Priory. By H. W. Saunders, M.A., D.Litt. (Norwich: Jarrold & Sons. 1930.)

The work that has been in progress during several years in the Cathedral archives of Norwich, with the scholarly encouragement and under the general supervision of the present Dean, has attracted considerable attention and interest. The Guild of "Friends of the Cathedral Church of Norwich" saw that any adequate description of the ancient building and its environment must be based on the contemporary muniments which record the activities of its cloistered inmates, coupled with the reports and accounts received from the officers in charge of its scattered manors. Less intimately connected with the daily life in Church or monastery, though equally necessary for their maintenance, were the receipts of rents and contributions from the dependent cells and urban properties, together with pensions, tithes, and other spiritualities.

The income of the Priory as recorded in the receipts shown in these revenue rolls is a key to the monastic establishment, and the various activities of its departments are similarly indicated in the expenditure, accounted for in the same rolls or in specialised accounts. At the same time, the task of unravelling the tangled threads of monastic finance as presented in the broken series of

surviving muniments is one of extraordinary difficulty; though Dr. Saunders has made special efforts to lighten and direct it, not only by means of intimate descriptions, but also by a lavish provision of photographic facsimiles and statistical tables. In another direction, he has incidentally provided students of the Agrarian and domestic economy of the Priory with assistance in appreciating the significance of the technical terms which occur abundantly in the monastic documents, though a systematic elucidation of the terminology referred to may perhaps be already planned as a pendant to further volumes containing extracts from the rolls themselves.

The surveys and accounts of the monastic estate offices were concerned with arable cultivations, meadow, pasture, woodland, moorland, salt marsh and fen, as well as with the erection or maintenance of buildings connected with the Church itself and with its interests as a landlord. The products of these various holdings as rendered in rent and in kind, or as purchased in local markets and elsewhere, occupied the attention of the several monastic departments whose relationships and official activities are indicated here in an elaborate chart. This, of course, should be carefully compared (as Dr. Saunders reminds us) with the parallel systems in use at Durham, Winchester, Canterbury and elsewhere. Moreover, it might be added that the titles used in this table do not necessarily denote distinct classes of documents. For example, sheep or stock accounts do not imply the existence of a separate department dealing with live-stock, as at Durham, while both stock and grain accounts may refer to schedules appended to the bailiffs' accounts as well as to the departmental accounts of the obedientiaries.

The tables referred to and some others set forth the income and expenditure of the Priory; and under the former head the manors and churches contributing to its revenue are tabulated with their respective statements of accounts, inventories and sub-accounts; and here, too, are included other estate muniments, such as court rolls, extents and cartularies, presumably because they state the proper rates by which rents and sales and feudal incidents are estimated in the account rolls.

It would seem that Norwich is even richer than Durham in manorial or departmental inventories, though Dr. Saunders has found a dearth of extents, usually plentiful; but it could not, of course, be expected that the intensive and helpful method of research found in this work will enable us to compare the conditions which obtained in various English establishments of the Bene-

dictine order alone, though some hints on this subject may be expected from the textual examination of the Norwich rolls prepared by Dr. Saunders and in another aspect from the researches of Mr. W. A. Pantin on the visitations of the general chapters of the Black Monks.

It might seem, indeed, that a full list of the sources of any lay or clerical corporation can scarcely be compiled without an estimate of the potential sources. Thus we might wonder if the archives of the Norwich cells have been or will be accounted for here because though Dr. Saunders seems to regard them as negligible, they are of some importance in the case of Durham. Again, even cathedral churches which have retained the bulk of their title-deeds have parted with some valuable compilations which have found their way into academic or private libraries where they still remain. Dr. Saunders has, in fact, referred to a Norwich extent in the British Museum and to manor rolls in the Bodleian, and those who have some across these and other scattered vestiges will hope to find them classified in a further volume.

A glance at the helpful Table of Contents prefixed to this introductory volume will show not only the exceptional value of the materials for an intensive study of monastic finance which exist in the Norwich muniment room, but also the extensive use that has been made of them by the author. These materials are carefully described and classified by Dr. Saunders in the first two chapters of this volume. A third chapter is occupied with a technical and necessarily contentious discussion of the position of this church in connexion with the official scheme of ecclesiastical taxation, a subject on which such authorities as Dr. Rose Graham, Professor Lunt and the Rev. W. Hudson hold opposite views. Dr. Saunders gives his own views as to the " real income " of the Church as he finds it stated in the rolls. This aspect of the subject is dealt with in a further chapter (V) enumerating and explaining the contributions of the dependent churches or appropriations to the revenues of the mother house and diocesan church.

The two most important chapters, however (IV and VI), are those concerned with descriptions of the Manors of the Priory and of their relations with the several obedientiary departments. Here new theories of outstanding interest are advanced by Dr. Saunders with regard to the " Proficuum of the manors and their so-called wainage," and, in connection with the obedientiary system, to the autocratic administration of a " Master Cellarer " who seems to have been a " super-obiedientiary " taking the place

at Norwich, of a treasurer or bursars, and also dwarfing the importance (if not superseding the functions) of the "Camera Prioris" with the exchequer and visitations and audits which form such an essential feature of the monastic establishment elsewhere. Naturally these are theories which will need to be realised before they can be properly understood or fully accepted, but it is at least possible and proper to congratulate Dr. Saunders on the important evidence which he has brought before us with so much zeal and industry.

Other intriguing discussions will be found in Chapter VII on "Book-Keeping" and in Chapter VIII on "Sundry Problems," among which those relating to the Monastic Population, the Monastic Debt, the Inter-relation of the Departments (in the obedientiary system) and the Black Death are perhaps most noticeable.

For the rest, the reader will not fail to notice some valuable contributions to our knowledge of such essential economic institutions as the Assize of Bread and Ale, Renders of manorial produce in kind, and the Audit of Accounts, with other matters of interest relating to grain, live-stock, wool, wax, clothing, diet, travel, the relief of the poor, and much information respecting prices, weights and measures.

HUBERT HALL

The Story of Money. By NORMAN ANGELL. (London: Cassell & Co., Ltd. 1930. Pp. xvi + 422. 21*s*. net.)

THE author (whose knighthood, conferred in the last New Year's Honours, has given pleasure to many) defines his book as "not a treatise on Monetary Theory, nor is it a history of the technical developments of Monetary practice or of Banking. It is a story written for the layman, of man's experiences with the device of money." He would probably also disclaim any suggestion that it was a history in the severe sense of the term. But even regarded as a story it is unbalanced. The reader is more than a third of the way through the book before he is clear of the Greek and Roman period, and nearly as many pages are occupied in discussing usury, mercantilism, money kings in the past, and paper money experiments before we reach the beginning of the nineteenth century. The word "assignat" does not appear in the index, and there does not appear to be any account of French experiments with paper money at the time of the Revolution. The story of the development of the British bank-note and cheque is obscure, nor does there seem to be any summary of the monetary

debate that followed the conclusion of the Napoleonic wars. Developments in the United Kingdom during the nineteenth century appear to be neglected. Worst of all, while the publishers claim that "the road to understanding of the great problem is clearly illuminated for the benefit of 'Everyman,'" and Mr. H. V. Hodson has provided a summary of the views of experts (some of whom will wonder at the company in which they find themselves) as to the monetary problems of to-day, no indication is given to poor, bewildered "Everyman" regarding the merits of these gentlemen as guides.

The book is rather a collection of materials than a history or even a "story." Sir Norman has read widely and quoted freely, and one can hardly open a page without coming across some interesting facts or some useful quotation. The story of Canadian card money is only one among many queer devices which are recorded, and many of the illustrations are of merit. To dip into the book will combine both instruction and entertainment, for, to tell the truth, as the Scotsman said about singed sheep's head, it is "fine confused feeding."

HENRY W. MACROSTY

Economic History of the American People. By ERNEST LUDLOW BOGART. (New York: Longmans, Green & Co., 1930. Pp. 797.)

PROFESSOR BOGART'S *Economic History of the American People* is a new book, not a revision of his well-known *Economic History of the United States.* The author has undertaken a re-examination of many source materials and has given space to the newer viewpoints as brought to light by recent investigations into various phases of American history. This fact justifies another book on the economic development of the United States.

Bogart divides his treatise into three parts: *Colonial Development,* 1492–1783 (220 pages); the *Westward Movement,* 1783–1860 (254 pages) and *Industrialisation,* 1860–1930 (310 pages). It would be difficult to single out any one section or chapter for special praise or criticism. Whether or not sufficient stress has been laid on the European background of American economic history is debatable. The reviewer inclines to the opinion that the treatment of this subject is somewhat inadequate, especially in the introductory chapters. While Professor Bogart's volume is intended as a text for college use, it does not have the ear-marks of a history written for those who lack intellectual

curiosity or for those who possess an over-developed propensity for the more practical aspects of economics. The author's interpretations and emendations of controversial matters are scholarly and lucidly stated.

Without a doubt this volume is the most significant contribution to the general history of the economic development of the United States to appear in recent years. It makes the mediocrity of the majority of treatises on the same subject all the more apparent.

FELIX FLUGEL

University of California.

Moral Sense. By JAMES BONAR, LL.D. (London: George Allen and Unwin. 1930. Pp. 304. 12*s.* 6*d.*)

THIS last addition to the "Library of Philosophy" deals with the rise, progress and decline of the doctrine which derived our moral perceptions from a special moral sense comparable by analogy to the physical senses. Even if this theory had not eventually fallen to pieces by itself, it was in Dr. Bonar's opinion doomed to share the downfall of the "multitudinous faculties" of the old psychology. Nothing, however, could show better than the critical analysis before us how hard the theory actually died.

"In our own time," the book begins, "moral sense means the recognition of the ordinary principles of morality"; in the early eighteenth century it meant something quite different. Dr. Bonar writes sympathetically of Shaftesbury, the originator of the creed, following with the criticisms made by Manderville, Berkeley and Butler. The last-mentioned, however, is a supporter rather than a critic, and his inclusion on chronological grounds in the chapter on critics is slightly confusing. Four chapters are devoted to Hutcheson, who built up the most elaborate doctrine of a Moral Sense, and in the dictum that self-love is as necessary to the good of the whole as benevolence, and that the right to the fruits of our labour is a perfect right, incidentally furnished the economic basis on which his disciple, Adam Smith, was later to build. Two chapters deal with the moral philosophy of Hume, whose attempts to introduce the experimental method of reasoning into moral questions dealt a heavy, but by no means a mortal blow, to the theory of the Moral Sense.

The economist naturally turns with special interest to the chapters on Adam Smith, only to appreciate Dr. Bonar's caustic observation that it has needed all the fame of the *Wealth of*

Nations to keep alive the memory of the *Moral Sentiments*. Adam Smith rejected the Moral Sense, but put forward no substitute, although in one place Dr. Bonar seems to find in Smith's theory a dim and distant groping after the ideas of Kant.

The last chapter, entitled "Kant on the Moral Sense," gives a brief exposition of the Categorical Imperative, and then proceeds to the writer's own views and conclusions. Morality without a metaphysical basis is bound to degenerate into a system of mere respectability. Locke, Hume and Adam Smith all fail to find the spirit behind the senses. Kant's Moral Law, on the other hand, if it is to mean anything, must apply to man in Society and the State. "The course of history seems to point, not to an instinct, but to a power of decision, acquired through the moral training given by social institutions, family, society and state, with tradition as the general name for the transmitted influence." This is illustrated by a comparison between the moral standards of to-day and those of a century ago. Dr. Bonar has succeeded in lending freshness to a controversy so old as to be almost outworn, and the reader is only sorry that he did not give his work an additional finish by means of a closer correlation between his conclusions and the opening sentences on the modern meaning of the moral sense.

H. Reynard

NOTES AND MEMORANDA

A Note Concerning Mr. J. R. Hicks on "The Indeterminateness of Wages"

I am not sure that I understand the precise points which Mr. Hicks is disputing and is contending when he makes certain criticisms of Marshall, and subsequently also of myself, in the Economic Journal for June 1930. But his contention that Marshall's barter analogy is irrelevant to the problem of a competitive labour market appears to be based on two arguments. *First*, that the barter analogy only applies to bargains between parties which start with fixed *stocks*. When one is dealing with successive wage-bargains from week to week, this condition does not hold, since the worker's "stock" of labour is renewed each week (is a recurrent "flow," not a "stock"), while the stock of income he carries over from week to week is too small to be relevant. *Secondly*, that even if the first week's bargain has resulted in a rate disadvantageous, say, to labour (and consequently in a raised marginal utility of income to that party), the "employers' mutual competition" in subsequent weeks will suffice to restore wage-rates to the "normal value" of labour.

The first objection, I think, is largely a verbal one. "Stocks" in the barter analogy, I believe, is a typical rather than a limiting concept, used to illuminate the whole *genus* of problems in which the outcome of a particular bargain may react on the marginal utility of the commodities exchanged, and hence render subsequent bargains partially arbitrary in their result. It seems fairly clear that Marshall used it in this sense (cf. *Principles*, V. ii. 3 and footnote). (I cannot conceive that Mr. Hicks maintains that the marginal utility of income to the two parties has *no* relevance to the problem—that *no* assumption need be made about it at all. Presumably he does not maintain this, since on p. 226 he himself admits a case where a changed valuation of income will be relevant.) For instance, in Pareto's device of constructing demand- or offer-curves from tangents drawn to a series of indifference-curves the system of tangents, and hence the offer-curves, will be different according to the point in the plane

from which one starts. This point is easily defined in terms of the initial possession of so many units of the two relevant commodities, *a* and *b*. But the significance of this position in the plane is a certain numerical relationship between *a* and *b*, and the point could just as reasonably be defined in terms of its simple numerical co-ordinates.

The barter analogy of Marshall can, therefore, have no relevance to the problem of a labour market only if the income received in the first week has *no* effect on the marginal utility of income to the workers in the second week: then, and only then, can the co-ordinates of this point be treated as a constant and the offer-curves of the second week be treated as independent of the outcome of the bargain in the first week. Can Mr. Hicks really maintain that this independence holds true? If so, what innate property or super-circumstantial factor fixes the marginal utility of income in so constant a fashion? Presumably Mr. Hicks pictures the worker who presents himself for re-engagement or for new employment as completely *tabula rasa*. If so, the worker's valuation of income is indisputably constant: if the *tabula rasa* implies nakedness, an empty larder and an empty stomach, then the marginal utility of income (in terms of effort) will remain always at the point which Mr. Harrod has recently characterised (ECONOMIC JOURNAL, December 1930, p. 706) as the point where a man is willing to work up to 100 per cent. of his capacity in return for a subsistence income. If this is Mr. Hicks' "determinate equilibrium," then the now unfashionable "Iron Law" has found a new and courageous champion: the gloomiest disciple of the "Iron Law" could hardly have said anything more definite. Strange though it may seem, this is apparently all that Mr. Hicks' argument amounts to. On p. 228 (unless I miss a concealed profounder meaning) he proceeds to argue that "reserves" can have nothing to do with the determination of wages, since wages will tend to fall until the workers' reserves have entirely disappeared. *Ergo*, in this limiting case "reserves" can have nothing to do with the matter. "When the reserve is gone, consumption must contract, and the market settle down to a final equilibrium." I will not dispute with him that a cumulative fall of wages must have *some* limit: he is welcome to that debating point if he likes. But to state that wages, once started on the downward path, will tend towards this limit and then stay there is, surely, to state my case more definitely than I myself have expressed it? Since when, at any rate, has it been a refutation of the statement that the size of *x*

affects a certain problem to assert that x is usually equal to zero?

To put the matter precisely: the marginal utility of income, being a subjective valuation, can hardly be regarded in a given week as unaffected by the circumstances of the preceding week, if only through such an indefinable medium as "mood." But one can translate the matter, if need be, into terms of "stocks." Why should the "stocks" with which the worker starts his second bargain be confined to goods in the larder or shillings in the savings bank? Why should they not include, too, his furniture and trinkets, which are pawned when times are bad? Why should not they be thought of as including his clothes, which grow threadbare after a period of "sweated" employment or of unemployment? And why stop short of his human reserves of flesh and muscle—yes, and of the remains of his last meal in his stomach? The latter makes all the difference when one looks for a job. If the wage-bargain of previous weeks does not affect the size of these "stocks" with which the worker enters on a bargain in subsequent weeks, then what does? True, this factor can be conceived as affecting also his "stock" (or "flow"—what does the word matter?) of labour in subsequent weeks—affects the character of "100 per cent. capacity" for him. But this effect of the wage-level on the *efficiency* of the worker is simply another facet of the same problem, and can be expressed in the same terms.

Mr. Hicks' second argument, if I understand it aright, seems to flourish on a simple confusion. He seems to assert that even if the balance of bargaining power has depressed wages, this effect can only be temporary in "a continuous market." Here he uses Edgeworth's conception of re-contracting: each employer will bid against his fellows in trying to take on more men. "Wages will thereby be bid up to the normal value of the labourers' marginal net product, and the first disadvantageous contract will have no effect in depressing them." But for each employer the engagement of additional labour will be conditioned by a curve of marginal productivity of labour (differing somewhat, of course, in the long period from the short period), and this will presumably be a descending curve. If wages are below the old equilibrium point, employers will tend to extend their employment of labour along this curve. If, however, the lower wage in the interim has produced a change in the supply conditions of labour (through reactions on the marginal utility of income to the worker), then the new point of equilibrium—the point of inter-

section of the two curves—will be in a *different* position and at a different level from the preceding one. Hence, if "normal value" means "previous value" (and if it does not, it can mean little in this context), the competition of employers will not suffice to restore wages to this level. Would Mr. Hicks extend his argument to an ordinary commodity of which the supply-price has been cheapened: "the buyers' mutual competition, by some buyers endeavouring to buy more units of the commodity, will bid up the price to its *previous* value, namely, its marginal utility"? The point is so elementary that I hesitate to think that Mr. Hicks has adequately expressed his meaning. Perhaps "normal value" has for him some sublimer property that I am too vulgar to see.

MAURICE DOBB

A REPLY

I am afraid I cannot accept Mr. Dobb's criticisms; but perhaps I may be allowed to elucidate my position on one or two points where I do not seem to have been clear.

(1) I was certainly not maintaining that "the marginal utility of income to the two parties has no relevance to the problem." My argument depended on the much less contentious point that if a man's income and expenditure balance, his reserve will be the same at the beginning of one week as it was at the beginning of the week before, and in consequence his supply-curve of labour (so far as it depends on his reserve) will be the same. The question of reserves need only concern us in discussing individual supply-curves of labour in successive weeks (or contract periods) if reserves change.

If, as the result of lower wages in the first week, which have not been matched by reduced consumption, reserves are depleted, then I am quite prepared to admit that the supply-curve of labour in the second week will be shifted. The labourer will probably be prepared to work more, and wages per unit of labour will be again reduced.

There is an obvious end to this process, where reserves are exhausted; but I did not mean to suggest (though perhaps I expressed myself badly here) that the normal process is for a cumulative decline in wage-rates until this end is reached. The process only goes on because the labourer is living beyond his income; he may be driven to do so for a short while because of the difficulty of adjusting his expenditure to the new scale, but

in the great majority of cases he will not go on doing so until he is stripped bare of all kinds of reserves. As soon as possible he will reduce his expenditure, and when this happens the cumulative process stops. The supply-curve remains the same in the (say) fourth week as it was in the third, and a stable equilibrium is reached.

I constructed this argument because it was the nearest approach to a cumulative decline which I could find to be justified on Mr. Dobb's arguments; but I should not like it to be supposed that this is what I think really happens in normal cases of wage-reduction. For we are assuming an extreme degree of plasticity in wage-rates to match rigidity in expenditure; it is scarcely possible that wages are often adjusted to demand and supply so quickly as this argument assumes.

(2) Where we make the same assumptions as before, but examine the case of a man exploited by an employer who "out-bargains" him, then it is also possible that his supply-curve may be shifted. So long as this supply-curve remains in its new position, it may be agreed that the "point of equilibrium" is changed. But when competition gets to work, when the workman transfers his services to an employer who is offering better wages—and *ex hypothesi* this will happen sooner or later—why should the supply-curve remain in its second position? At first, perhaps, while reserves are being built up, it will remain in a position other than normal, but as soon as reserves have been restored to the level shown at the beginning of the story, the "normal" equilibrium will be restored. I see no reason why this should not be so, as long as we look only at the supply-curve.

Of course, while we are about it, that is an unfair specialisation of our attention. It is quite possible that equilibrium may be permanently shifted by a shifting of the demand-curve as a result of the first exploitation. If some of the employer's monopoly gains are saved (or should one now say "invested"?) the final equilibrium wage may actually be raised.[1] I do not attach much importance to this, though it seems at least as valid as many of the points which have been made in this discussion. And it is certainly not an argument on the basis of which one can approve of exploitation or defend *laisser-faire*. Competition does tend to abolish the exploitation of labour, but it is very slow about it. It is quite slow enough for some interference to be desirable, but what kind of interference is altogether another question.

J. R. HICKS

[1] Cf. Keynes, *Treatise on Money*, Vol. II. p. 162.

Official Papers

League of Nations: Economic Aspects of Several International Industrial Agreements. (Allen and Unwin. *2s. 6d.*)

The Secretariat of the League of Nations has published a Review of the Economic Aspects of several International Industrial Agreements prepared for the Economic Committee by MM. Antonio St. Benni (Italy), Clemens Lammers (Germany), Louis Marlio (France) and Aloys Meyer (Luxemburg).

This publication, in the preparation of which Sir Harry McGowan (Great Britain) also took part, is to some extent the outcome of the work undertaken on the recommendation of the Economic Conference of 1927, with regard to international industrial agreements.

The Economic Consultative Committee and the Economic Committee considered that the inquiry recommended by the Conference should bear upon the status and juridical forms of industrial agreements as well as the laws by which they are governed, and also the subject-matter and nature of such agreements and their international economic rôle.

The Review which has just been published concerns the second part of the inquiry. The authors explain in a preface that the general term "international concentration" includes any movement towards the co-operation, in the sphere of private enterprise, of the industrial and commercial undertakings of different countries for the purpose of improving the organisation of production and marketing. They then draw attention to the diversity of forms taken by this co-operative movement, analysing the main lines of development during the past few years and giving their opinion on possible difficulties in controlling international cartels and in unifying national laws in this connection. The authors of the Review, who are themselves leading members of important industrial organisations or in close touch with the industry of their countries, propose to describe the economic aspects of the problem in more detail in a special memorandum dealing with the views put forward in an earlier publication giving the opinion of legal experts.

The Review is composed of a series of monographs analysing

the rôle and working of various international agreements, in particular international agreements in the metallurgical industry (International Steel Agreement, Convention between the German and Franco-Luxemburg metallurgists, International Rail Makers' Association); international agreements concerning non-ferrous metals (zinc, copper, tin, lead); the European Aluminium Cartel; the European Mercury Consortium; the Franco-German Potash agreements; the Aniline Dyes Agreement between producers of France, Germany and Switzerland; the Industrial Association of Bone Glue Manufacturers (Epidos); the tendency towards concentration in the artificial silk industry; the European Linoleum Trust; the international agreement in the incandescent electric lamp industry. (*Communicated.*)

Die öffentliche Verschuldung im Deutschen Reich am 31. *März* 1928 *und am* 31. *Dezember* 1929, bearbeitet im Statistischen Reichsamt. (Einzelschriften zur Statistik des Deutschen Reichs, Nr. 13, Verlag von Reimar Hobbing, Berlin SW. 61, 453 Seiten, 3 farbige Tafeln. Preis *Rm.* 15.)

DIE Schulden der deutschen öffentlichen Körperschaften sind von 14, 6 Mrd. RM in März 1928 auf 20, 6 Mrd. RM im Dezember 1929 angewachsen und dürften gegenwärtig nahe an 24 Mrd. RM betragen. Die Reichsfinanzstatistik hat diesem ernsten Sympton der gesamten Wirtschaftslage frühzeitig stärkste Beachtung gewidmet. Die Ergebnisse der erstmals am 31. März 1928 durchgeführten amtlichen Schuldenerhebungen werden in der neuen Einzelschrift des Statistischen Reichsamts ausführlich in zusammenfassender Darstellung veröffentlicht.

Der umfassende Stoff ist in drei Hauptteile gegliedert. Der erste gibt eine *Gesamtübersicht* über die Verschuldung, ihre Höhe und Formwandlung gegenüber der Vorkriegszeit, ihre Bedeutung für den Geld- und Kreditmarkt, für die Sachkapitalbildung, für die Zins- und Einkommensgestaltung usw.

Im zweiten Hauptteil werden die einzelnen *Arten der Verschuldung* behandelt. Die Belastung aus der Ablösungs- und Aufwertungsgesetzgebung, die Verschuldung an das Ausland, die verschiedenen Formen der inländischen Kapitalbeschaffung, die gegenseitigen Kredithilfen der öffentlichen Körperschaften gelangen hier zur Darstellung. Auch auf die Bedingungen und die Verwendungswecke der Schuldformen, so etwa auf die Frage,

inwieweit die Auslandsschulden einer produktiven Verwendung zugeführt worden sind, ist eingegangen.

Der dritte Hauptteil behandelt die *Verschuldung der einzelnen Körperschaften* nach Höhe, Zusammensetzung, Bedingungen und Verwendungszwecken. Für die Reichsschuld ist die gesamte historische Entwicklung kurz zusammengefasst. Bei den Länderschulden sind die grösseren Länder einzeln behandelt. Die finanzpolitisch besonders wichtige Kommunalverschuldung ist für jeden grösseren Gebietsteil im Deutschen Reich und für die verschieden grossen Gemeinden besonders dargestellt. Die Verschiedenartigkeit des gemeindlichen Kreditbedarfs und der Kreditbedingungen ist auch unter wirtschaftsgeographischen Gesichtspunkten behandelt worden.

Das Tabellenwerk gibt die Höhe, Zusammensetzung, Bedingungen und Verwendungszwecke der Schulden für das Reich, die einzelnen Länder, die Gemeinden der einzelnen Grössenklassen, Länder und Landesteile in übersichtlicher Anordnung wieder.

Da an der Frage der öffentlichen Verschuldung nicht nur das volkswirtschaftliche Interesse des Finanz- und Wirtschaftspolitikers, sondern auch das privatwirtschaftliche Interesse des einzelnen Schuldners oder Gläubigers besteht, dürfte der Schrift eine weite Verbreitung gesichert sein. (*Communicated.*)

The Association of Teachers of Economics

The Annual Conference of the Association of Teachers of Economics met at University College, Oxford, from January 2nd to 5th, 1931. The Conference was very well attended, and excellent discussions took place. On the Friday evening Professors D. H. Macgregor and T. E. Gregory drew attention to certain aspects of Rationalisation. They were unanimously of the opinion that this word has been generally abused, often with the object of disguising anti-social activities on the part of certain business interests. Professor Gregory stressed again certain arguments already advanced in the last number of this Journal. The ensuing discussion turned mainly upon the extent and influence of the practice of retail price-fixing by manufacturers.

On Saturday, Mr. H. D. Henderson explained his attitude to proposals for imposing a moderate tariff upon imports into Great Britain. Professor L. C. Robbins opened a discussion which was very lively and lasted for several hours. It was quite clear that only a very small minority favoured the moderate tariff proposal.

On Sunday morning a more informal discussion on the Social Significance of the Industrial Revolution was opened by Dr. A. Redford. Many members took part, and on the whole the opinion of speakers was that other factors than the industrial changes were responsible for the social discontent of the early nineteenth century in this country. In the evening a most interesting lecture on Biological Aspects of Population was delivered by Professor L. T. Hogben. It would be impossible to summarise here what he had to say. All members were greatly disappointed that time did not permit of a discussion, and everyone looks forward to being able to read Professor Hogben's arguments later.

The Conference was more numerous than ever. Members are anxious that while the Association shall be inclusive it shall not grow so unwieldy as to impair the value of the Conference as an annual opportunity for friendly meetings. Accordingly, the Constitution was amended to read as follows: " Membership of the Association shall be open (*a*) to Teachers of Economics, Economic History, Sociology, Commerce and such other kindred subjects as the Association may from time to time approve within British and Irish Universities and University Colleges; (*b*) subject to the approval of the Committee in each case, to persons who have been engaged as such teachers, and to any other persons whose co-operation in the work of the Association is likely in the opinion of the Committee to be advantageous to the Association." The Committee was instructed by the Conference to ensure that members admitted under (*b*) shall not exceed a small proportion of those admitted under (*a*).

Professor H. A. Marquand resigned the office of Hon. Secretary and was appointed Hon. Treasurer. Mr. S. C. Parris, University College, Cardiff, was appointed Hon. Secretary. Applications for membership should be sent to him. It was decided to hold the next Conference, early in January 1931, in Reading; and Miss M. Buer was appointed Conference Secretary.

H. A. M.

OBITUARY

BONALDO STRINGHER

BONALDO STRINGHER, the eminent Governor of the Bank of Italy, died at Rome on the 24th December, 1930, aged seventy-seven. He had directed our great institution with admirable wisdom at times of the greatest difficulty, and its assured progress was largely due to him. But he was not only a financial counsellor whose advice was always asked by the Italian Government in critical circumstances, but a considerable scholar, who, in spite of the preoccupations of his high office, had with exemplary zeal enriched economic literature with some memorable contributions. From the time when, as a modest employee of the Ministry of Agriculture, he had in 1879 published a thick volume on *The End of Bank Restriction in the United States*, he never ceased from his long series of contributions on economic matters to learned periodicals and in book form. We would particularly mention his "Notes on Commercial Statistics," which was included in the *Economic Bibliotech* (IV Series, 1896), our great collection of leading works on Political Economy; his excellent *Report on the Italian Balance of Payments* (1912), where he showed statistically that the apparent unfavourable commercial balance of Italy was wholly compensated by the invisible items arising out of emigrant remittances and tourist expenditure; his standard work on *The State of Currency and of the Money Market during and after the War* (1920); and the excellent collection of his chief economic papers, *Papers Concerning Currency and the Money Market* (1925). Moreover, apart from his work on monetary matters, he contributed to the *Giornale degli Economisti* some important essays on the development of Italian commercial policy.

His merits had received the acknowledgment they deserved both at home and abroad. He had lectured on Commercial Policy before the University of Rome, was a member of the National Academy of Lincei and also of the Italian Academy, was a correspondent of the French *Académie des Sciences Morales et Politiques*; and he had been Under-Secretary of State and afterwards Minister of Finance. The successive triumphs of his career were achieved in an atmosphere of general esteem,

without ever giving occasion for envy or detraction. I have often heard eulogies of his qualities from the most eminent authorities in France and England. If, as Alexandre Dumas said, "Foreigners stand for our contemporary posterity," these eulogies from abroad can be read as a promise of the lasting remembrance of our lost friend.

ACHILLE LORIA

CURRENT TOPICS

THE following have been admitted to membership of the Royal Economic Society:—

Abrahams, N.
Achurch, G. P., M.B.E.
Adarkar, B. P.
Agar, Mrs. H.
Agnew, Sir George W., Bart.
Ahern, J. M. P.
Aiyer, A. S.
Ali, Mohd.
Allen, A. E.
Allen, A. S.
Andrews, G. W.
Andrews, R. S.
Ansell, T.
Armitage-Tedd, G.
Armstrong, Prof. Florence A.
Arnold, T. G.
Atack, G.
Baggaley, W.
Baillieu, C. L.
Baindoor, B. S.
Baird, R. F.
Baker, A. E.
Baker, J., M.P.
Balakrishnan, A.
Balasubrahmanyam, K.
Baldwin, G. J.
Bangaruswami, R.
Barbour, R. H.
Barger, H.
Barker, J.
Barr, C. J. H.
Bayly, F. D.
Beckett, R. E.
Beeton, W. H.
Belisha, A. I.
Bell, W.
Bensusan-Butt, G. C.
Betts, E. E.
Bignell, W. A.
Binns, J. H.
Birch, H. A.
Bird, W. A.
Bisson, E. J.
Blacklock, D. S.
Blake, H. H. C.
Blumstein, S.
Bonavia, M. R.
Bottomley, W.
Bowater, E. J.
Brandwood, F.
Brierley, E. W.
Brooks, N. B., M.C.
Brown, D. M.
Burns, J. A.
Campbell, C. G.
Carey, W. H. B.
Carr, C. M.
Carter, G. R.
Cavadias, D.
Chang, H.
Charanjiva, J.
Chase, H.
Cheesley, D. N.
Chew, T. S.
Choudary, V. P.
Chudleigh, H. E.
Clark, Prof. H. F.
Clarke, H. D.
Clay, R. O.
Clayton, J.
Clements, V. A. H.
Collinge, V.
Colm, Prof. Dr. G.
Combe, E. P.
Connerton, T. R.
Constantine, A. K.
Cook, G. R.
Cottier, F. E.
Cottrell, R. B.
Coutsoyannis, J. A.
Cramp, J. K.
Cresswell, J. E.
Cross, A. J.
Darling, G.
Das, N.
Davey, H. N.
Davies, J. D.
Davies, N. L.
Dawes, S. S.

Dennis, L.
Dennison, S. R.
Dent, A. G. H.
De Waal, C. Van
Dickinson, S. Y.
Donald, W. G.
Dougall, W. R.
Douthwaite, C. M.
Downes, Captain R. E.
Downing, T. D.
Driver, J. C.
Duncan, Prof. H. G.
Durmay, T.
Ebbels, F.
Edbrooke, J. S.
Farmer, Miss M.
Faulkner, H. E.
Fennamore, R. W.
Fenning, J.
Fifield, E. C.
Filipetti, Prof. G.
Fletcher, E.
Ford, J.
Forde, P. A.
Foxworthy, J. H.
Fraser, K. L.
Galloway, J.
Garnett, C. E.
Garrigós, Dr. I. C.
Geary, F.
Ghori, K. A. H.
Ghose, S.
Gollop, L. J.
Goodliffe, A. G.
Graves, J.
Greenwood, G. C.
Grindle, G. E. A.
Haensel, Prof. P.
Halim, Abdul.
Halls, T. E.
Harris, A. N. V.
Harris, C. S. J.
Harrop, W. E.
Hartley, W. N.
Head, R. J.
Hemsley, C. L. V.
Héroys, V.
Hertzog, Prof. J. S.
Hewetson, H. W.
Hick, H. H.
Hicks, P. R.
Himadeh, Prof. S. B.
Hodder, H. G.
Hodgkin, Dr. H. T.
Hohler, C. G.
Holme, Miss M.
Holt, D.
Hoover, Prof. C. B.
Hucker, F. C.
Humphreys, W. E.
Hurst, J.
Hutton, M. I.
Ives, A. G. L.
Jackson, C. E.
Jeger, G.
Jewkes, J.
Johns, H. C.
Johnson, J. S.
Johnstone, F.
Jones, V. H.
Jukes, H. N.
Kaldor, N.
Keelan, S. A. C.
Keeney, J.
Keeton, V.
Kellaway, W. H.
Kenia, V. M.
King, H. J.
Kleinschmitt, E.
Kruger, M. C.
Lamb, J. C.
Lanphier, H.
Leech, E. H.
Lewis, F. S.
Lewis, N.
Light, D. G.
Long, W. E.
Longfield, B. A., J.P.
Lupton, J. D.
Mackay, R. S.
Mackenroty, Dr. G.
Mackenzie, C. H.
McLaughlin, G. E.
MacLean, H. C.
Macqueen, M.
Magaard, H. G.
Marsh, C. H.
Martin, R. F. R.
Mason, A. C.
Mata, P. S.
Menist, F. M.
Meredith, Prof. L. D.
Modigliani, Dr. P.
Moore, R. S.
Morison, J.
Morley, C. O.
Morris, G. W.
Morton, J.
Mosscrop, A.
Nader, Dr. A.
Nand, Prof. P.
Nann, P. A.
Nash, E. F.
Nelson, Prof. E. G.
Normano, Dr. J. F.
North, A. L.
Ockenden, A. E. A.
Oldfield, Rev. Dr. W. J.
Parekh, C. V.
Paustian, Dr. P. W.
Pecorini, R. R.
Pedoe, A.
Perez, S.
Poppleton, G.
Potter, G. C.
Potter, J.
Quick, A. S.

Rahman, K.
Rasminsky, L.
Raybould, S. G.
Reed, G. J.
Reid, J. I.
Rhodes, C. A.
Riley, H. H.
Risbridger, J. T.
Robinson, W. S.
Roe, C. L.
Roll, Dr. E.
Rowe, S. J. E.
Rowlett, E.
Rowson, R. B.
Runken, J. E.
Russell, V.
Ryan, J., M.C.
Samuel, B.
Sanford, L. R.
Sastry, K. P.
Schwarz, E.
Scott, W.
Selkirk, Miss C.
Sen, A. K.
Shaw, T. A.
Short, L. E.
Siefkin, C. G.
Simkovitch, Prof. V. G.
Simpson, E. O.
Simpson, W. J.
Sirothia, V. P.
Smith, F. H.
Sprague, O. M. W.
Sprigge, C. J. S.
Stanbury, R. W. W.
Stoddard, E. S
Streightoff, Prof. F. H.
Sujan, R.
Sur, S. P.
Sutton, L. H.
Taylor, D.
Taylor, W. L.
Taylor, W. R.
Temple, Major B. J.
Thadaini, P. R.
Thomas, B. B.
Thompson, L. M.
Thorn, F. W.
Thorne, H. B.
Till, A. G.
Todd, Miss J.
Tompkins, P. E.
Tunnington, W. F.
Utting, K. G.
Van Luytelaer, Dr. T. A. P. A.
Venner, W. S.
Vine, C. A.
Walker, J. C.
Walsh, J. R.
Westby, G.
Wheeler, H. T.
White, H. N.
Whitehouse, E. E.
Williamson, W. M.
Willson, W. F.
Wilson, D.
Wissler, Prof. W.
Woo, Tsung-tao.
Wood, A. W.
Woods, A. G.
Yagnaswami, R.
Young, Prof. R. A.
Young, T.

The following have compounded for life membership of the Society :—

Alberti, Mario.
Allan, Henry.
Allen, R. G. D.
Beckly, W. E., M.C.
Bemrose, J. M.
Binder, B. H.
Caradog-Jones, D.
Clayton, Allan.
Cohen, Miss R. L.
de Souza, Alvaro P.
Eberhart, E. K.
Fukai, Eigo.
Goonetilleke, O. E.
Hughes, H. G.
Jacobsson, P.
King, C. H.
Knott, H.
Lollar, E. J.
Luckham, H. A. L.
Middleton, J. J. I.
Nakagawa, Prof. T.
Reuchlin, H.
Rogers, H. S.
Scott, Ian D.
Wan, H. Y.
Welbourne, E.
Yates, P. L.

The following have been admitted to Library membership of the Society :—

Annamalai University Library, S. India.
Aug. Volz & Co., The Hague.

Australian Estates and Mortgage Co., Ltd., London and Melbourne.
Bank of New South Wales, Sydney. (Composition.)
Bristol University Library.
Co-operative Wholesale Society, Ltd., Manchester. (Composition.)
Crown Agents for the Colonies.
De Nederslandsche Bank, Amsterdam. (Composition.)
Fisk University Library, Nashville, U.S.A.
Howard University, U.S.A. (Composition.)
Hull University. (Composition.)
Imperial Council of Agricultural Research, India.
Industrial Research Dept., University of Pennsylvania.
Institut fur Wirtschaftspolitische Fortbildung, Nürnberg.
International Thrift Institute, Milan.
Kamer für Handel Gewerke und Industrie, Vienna.
Money Order Dept., G.P.O.
Nizam College Library, S. India.
Robt. Boby, Ltd., Bury St. Edmunds.
Universitats Biblioteket, Lund.

PROFESSOR SIR J. C. COYAJEE, who has been appointed the Society's Correspondent for India in succession to Professor H. S. Jevons (who has retired and returned to England), writes as follows :—

"The fourteenth Indian Economic Conference was held at Lahore from January 2 to January 6, 1931. The attendance was both satisfactory and representative, and besides the meetings for the discussion of economic topics, visits were made to the Match Factory and the Power House at Shahdara, to the Agricultural Farm at Lyallpur and to the Jallo Rosin Factory.

"Most of the papers contributed were on subjects of special importance to India at the present time, and such a selection of topics added to the interest felt in the proceedings of the Conference. Among the topics now to the fore in India might be mentioned developments and reforms in Finance and Banking and in the organisation of Labour. All these topics received due attention at the Conference. Thus Prof. Banerji's presidential address included a criticism both of the Meston Settlement and of the proposals of Sir Walter Layton. On the subject of Banking might be noted first a paper by Prof. J. C. Sinha on Industrial Banking in India, in which he advocated the starting of an all-

India industrial bank on the lines of the Industrial Bank of Japan —the State assisting only by the guarantee of a minimum dividend on the bonds for a limited period. On the other hand, Mr. Lokanathan argued for provincial industrial banks with a co-ordinating central board. Prof. P. J. Thomas discussed the central problem of Indian banking, viz. the possibilities of lowering the high interest rates which are current. It was no use putting the blame either on the indigenous banker or on the Imperial Bank; the remedy lies in our changing our methods of business so as to secure the creation of discountable paper and trade bills. Dr. H. Sinha's paper dealt with the strong and weak features of the Bengal Loan offices and suggested lines of reform especially in the way of centralisation. Mr. Ramchandra Rau discoursed on the lessons to be drawn from foreign banking systems and their application to India. He was at his best when he gave an account of the real dangers and difficulties which the future Reserve Bank would have to experience in the early days of its existence. Principal Tannan contributed a paper on " Regulation of Banks in India," in which he traced the history, objects and methods of Banking legislation in India. He also dealt with the possibilities of the supervision and protection of Indian banks. A study of industrial finance and incidentally of the Indian Managing Agency system by Mr. V. K. Rao was also instructive.

" The output on the topic of Labour was a smaller one. Prof. D. G. Karve spoke of the beneficial possibilities of the activities of the International Labour Organisation on the fortunes of Indian labour. But he put in a caveat to the effect that ' the necessary and inevitable amount of latitude from the Geneva decisions should be claimed and availed of, with a view to promoting the legitimate aspirations of national industry.' Prof. B. B. Mukherji examined some aspects of agricultural labour—the nature of the shortage of such labour, the sources of its supply and its present condition. He suggested the formation of employment agencies or agricultural labour bureaus to organise the movement of labour to secure its better distribution.

" Nor were the theoretical aspects of Economics unrepresented. There was a paper by Prof. Muranjan on the theory of Distribution, in which were discussed some controversial points in the theory. Prof. D'Souza furnished an estimate of Clark's contributions to the theory of Distribution.

" The discussions of this Conference are, however, best regarded as forerunners of the debates to come when the Reports of the Central Banking Committee and of the Royal Commission on

Labour will be published. With a view to this, it has been decided to keep to the fore Labour and Banking problems among the topics to be discussed by the next year's Economic Conference."

THE Institut für Weltwirtschaft und Seeverkehr at the University of Kiel ask us to make the following announcement :—

In accordance with Article 6 of the *Rudolf Funke Foundation*, the Institut will award a prize for a thesis on the following subject : "The International Inter-Relationship of Economic Fluctuations." The thesis should trace the development of Economic Fluctuations with typical examples from the beginning of the nineteenth century to the present day with a view to ascertaining whether the economic fluctuations of various countries coincide, or not, in time, intensity and otherwise—and if so, to what extent. In this connection, not only the various periods in the development of capitalism, but *also the relations existing* between different branches of economic life (*e.g.* manufactures, raw materials, agriculture) are to be taken into consideration. An historical-theoretical analysis of demonstrable unilateral or mutual influences is to be combined with this empirical description. At the same time the author is to show the different typical forms in which these fluctuations spread over the world. He is to explain the part played by psychical and material factors during this process (*e.g.* speculation, technical inventions, migrations, foreign trade, movements of capital). The general problems of the Theory of Economic Fluctuations are not to be placed in the foreground; the author, however, should examine to what extent his own particular theory of the international inter-relationship of economic fluctuations agrees with the general Theory of Economic Fluctuations.

This prize is open for competition to any individual research-worker, or to any group of research workers, or to any Institute.

The winner will be awarded the *Rudolf Funke Prize* of Rm. 18,000, and the Rudolf Funke Gold Medal. The Institute herewith reserves the right to purchase any thesis submitted for competition, even though it does not win the prize.

The thesis shall be typewritten (five copies) *in German or in English*, and must be handed in to the Secretary of the Institut für Weltwirtschaft und Seeverkehr at the University of Kiel not later than December 31, 1932. It shall be signed with a pen name; this pen name shall also be upon an envelope bearing the

name and address of the author which will be submitted with the thesis. In the case of a group of authors, the names of all the contributors must be mentioned.

The following have consented to act as judges :

Professor Dr. A. Aftalion, University of Paris,
Professor Dr. L. Birck, University of Copenhagen,
Professor Dr. B. Harms, University of Kiel,
Professor Dr. E. Lederer, University of Heidelberg,
Professor Dr. Wesley C. Mitchell, Columbia University, New York, U.S.A.,
Mr. D. H. Robertson, M.A., University of Cambridge,
Professor Dr. J. Schumpeter, University of Bonn,
President Professor Dr. E. Wagemann, University of Berlin and Deutsches Institut für Konjunkturforschung.

RECENT PERIODICALS AND NEW BOOKS

The Economic Record.

NOVEMBER, 1930. *The Effect of the Living Wage Policy on Wages for Skill.* D. T. SAWKINS. *Banking and Currency in New Zealand.* B. C. ASHWIN. *The Problem of the Budget.* F. A. BLAND. *Distribution of Income in New Zealand.* A. G. B. FISHER. *Report of the Royal Commission on the Coal Industry.* F. R. MAULDON. *The Sales Tax.* H. BURTON. *The Restoration of Economic Equilibrium.*

Economica.

NOVEMBER, 1930. *The Economic Works of Philip Wicksteed.* L. ROBBINS. *The Migration of Labour into the Glamorganshire Coal-field,* 1861–1911. B. THOMAS. *Administrative Law in the Early Company Acts.* H. A. SHANNON.

History.

OCTOBER, 1930. *General Economic History.* J. F. REES.

International Labour Review.

OCTOBER, 1930. *The Present Status of the Cotton Textile Industry.* E. B. DIETRICH. *Land Reform in Rumania.* O. GORNI. *The Problem of Agricultural Labour in Algeria.* G. J. STOTZ. *The Unemployment Problem in Japan.* S. IDEI.

NOVEMBER, 1930. *The Present Status of the Wool Textile Industry.* E. B. DIETRICH. *Labour Legislation in India.* R. K. DAS. *The Technique of Discussion in Management-Worker Relationships in the U.S.* G. A. JOHNSTONE.

DECEMBER, 1930. *The Employment of Children in Egyptian Industry.* A. ANDERSON. *Japan's Migration Problem.* S. IDEI. *Regulation of Conditions of Employment by the Spanish Banking Corporation.* DE ALTEA.

Indian Journal of Economics.

JULY, 1930. *The Cotton Mill Industry of the Madras Presidency.* N. G. RANGA.

OCTOBER, 1930. *Currency in Shivaji's Kingdom.* V. G. KALE. *Economics of the Foreign Trade of India.* S. C. BOSE. *Economic Development of India.* P. J. THOMAS.

Index (Stockholm).

NOVEMBER, 1930. *Mechanical Energy as an Economic Factor.* A. F. ENSTROM.

JANUARY, 1931. *The Most-favoured-nation Clause.* J. VINER.

Review of Economic Statistics (Harvard).

NOVEMBER, 1930. *The General Course of Wheat Prices in France, 1350–1788.* A. P. USHER. *Statistical Background of the Crisis of 1857.* A. H. COLE. *Business Volumes during Periods of Decline and Recovery.* J. B. HUBBARD. *Employment and the Buying Power of Consumers.* W. A. BERRIDGE.

Quarterly Journal of Economics.

NOVEMBER, 1930. *The Tariff Act of* 1930. F. W. TAUSSIG. *The Rise and Decline of Orthodox Tariff Propaganda.* W. J. EITEMAN. *Equilibrium Economics and Business-cycle Theory.* R. W. SOUTER. *Credit Expansion,* 1920 *to* 1929, *and its Lessons.* C. E. PERSONS. *Industrial Diversification in American Cities.* G. E. MCLAUGHLIN. *Mitchell's Business Cycles.* J. SCHUMPETER.

American Economic Review.

DECEMBER, 1930. *Economics of Accountancy.* I. FISHER. *Supreme Court and Railway Labour Act.* E. BERMAN. *Motor and Rail Carriers in Great Britain.* G. S. PETERSON. *Absorption of Credit by Stock Exchange.* T. BALOGH. *Psychological Yardsticks for Economic Values.* J. P. GUILDFORD. *Trades Union Congress and Workers' Education.* J. J. SENTURIA.

Journal of Political Economy.

OCTOBER, 1930. *A Mathematical Theory of Price and Production Fluctuations and Economic Crises.* C. F. ROOS. *A Culture Theory of Population Trends.* E. T. HILLER. *Economic Influences upon the Corporation Laws of New Jersey.* H. W. STOKE. *Gold Camps and the Economic Development of Western Montana.* S. J. COON. *Some Aspects of Mexican Immigration.* P. S. TAYLOR.

DECEMBER, 1930. *Period of Production, Durability, and the Rate of Interest in the Economic Equilibrium.* G. MACKENROTH. *Transport Co-ordination.* G. S. PETERSON. *The Italian Demographic Problem and the Fascist Policy on Population.* C. GINI. *Black's "Production Economics."* T. O. YNTEMA. *Production in Massachusetts Manufacturing,* 1890–1928. C. W. COBB.

Journal of Economic and Business History (Harvard).

NOVEMBER, 1930. *Natural and Money Economy.* E. F. HECKSCHER. *Warehousing and Trapezite Banking in Antiquity.* W. L. WESTERMANN. *Associations of Employers in the Construction Industry in Boston.* W. T. HAM. *The Chicago, Milwaukee, and St. Paul Railroad.* A. M. BORAK. *The Proposed Canadian-American Reciprocity Agreement of* 1911. W. G. SWARTZ.

Annals of the American Academy of Political and Social Science.

NOVEMBER, 1930. This number deals with China. Part I: *Fundamental Background.* Part II: *Social Conditions.* Part III: *Industrial and Commercial Development.* Part IV: *Internal Politics and Government.* Part V: *The Frontier Provinces.* Part VI: *China among the Nations.*

Wheat Studies.

(Stanford, California.)

NOVEMBER, 1930. *The United States Wheat Flour Export Trade.*

JANUARY, 1931. *Survey of the Wheat Situation, August to November, 1930.* Strikingly low and sharply declining wheat prices. Shipments from Russia of record size for post-war years were added to a moderately large crop in the rest of the world and a heavy carry-forward. Nevertheless wheat supplies available to the Western World are probably no heavier than in 1928–29. The recent policy of the Federal Farm Board is discussed.

Revue d'Économie Politique.

SEPTEMBER–OCTOBER, 1930. *Les théories économiques du salaire.* F. SIMIAND. *Les actions à vote privilégié au point de vue économique.* R. PICARD. *Après les conférences agraire de l'Europe centrale.* F. DELAISI. *Les sources de marxisme.* J. DELEVSKY. *L'œuvre économique de F. von Wieser.* M. ROCHE-AGUSSON. *De la distinction entre l'agriculture et l'industrie.* J. FAUGERAS.

Revue de l'Institut de Sociologie.

JULY–SEPTEMBER, 1930. *La disparité des pouvoirs d'achat de l'or.* G. DE LEENER.

Journal des Économistes.

OCTOBER, 1930. *Changement de structure dans la vie économique des États de l'Europe centrale.* E. HANTOS. *L'industrie automobile.* M. CARSOW.

NOVEMBER, 1930. *La crise agricole et la lutte avec elle.* S. B.

DECEMBER, 1930. *Le Brésil économique.* R. J. PIERRE. *La ville-champignon.* R. SÉDILLOT. *La Bourse de Copenhague.* M. CARSON.

Schmollers Jahrbuch.

APRIL, 1930. *Die drei Nationalökonomien. Einige Ausserungen zu Werner Sombarts Werk.* Reviews of, and discussions on, Sombart's recent book by AMONN, LANDMANN, SINGER, SALIN and SCHACK occupy 94 pages. Amonn is very critical of Sombart's attempt to introduce order into the "chaotic" condition of the science; Landmann discusses the philosophical basis of the book; Singer writes appreciatively of Sombart's attitude to the conflict between theoretical and historical investigation; Salin treats the work from an historical view-point, while Schack discusses the basic principles of national economy as dealt with by Sombart. *Begreifen und Versuchen.* LUDWIG v. MISES. This article also deals with Sombart's work and considers his criticisms of economics. *Ein System der Soziologie als werdender Universalität der Sozialwissenschaften. Zu Franz Oppenheimers Versuch.* W. BLEUGELS. A second instalment of Bleugel's critical appraisal of Oppenheimer's ideas, which makes reference to his notion of solving the social question by settlement, and to his criticisms of the marginal utility theory. *Zur Theorie des Klassenbegriffs und der proletarischen Klasse.* T. GEIGER.

JUNE, 1930. *Der "Uberbau" und die Wissenschaften von Staat und Gesellschaft.* C. BRINKMANN. *Das Wirtschaftssystem des Kapitalismus. Eine Auseinandersetzung mit Werner Sombart.* W. MITSCHERLICH. Argues that Sombart's definition of capital is too narrow; if this is widened and altered properly the case against capitalism disappears. *Kapitalistischer Geist und Verwaltungsbürokratie in offentlichen Unternehmungen.* E. LANDAUER. *Verschiebungen gemeinschaftlicher Ziele im Pazifik.* T. SURANNI-UNGER.

AUGUST, 1930. *Zur industriellen Entwicklung Sowjetruszlands.* P. BERKENKOPF. Sketches the period leading up to the Five-Year Plan, and discusses how far it has been effectively carried out—particularly with respect to the quality of production. This he finds to be so poor that it seriously threatens the feasibility of the Plan. Much concentration of industry has occurred undoubtedly, but there is dire need of effective rationalisation, the education of middle and higher technical staffs, and particularly of reduction of costs and the provision of capital funds. *Die Preislehre von Othmar Spann.* A. BILIMOVIC. *Grundfragen der Theorie des Verkehrswesens.* W. WEDDIGEN. *Der Mittelsland als Klasse.* L. FRISZCHING.

OCTOBER, 1930. *Die italienische Getreideschlacht.* F. BÖCHTING. *Der Mietpreis in der Wohnungszwangswirtschaft.* F. LÜTGE. *Grundsätzliches zur Marxschen Kritik an der Quantitätstheorie.* S. WENDT.

DECEMBER, 1930. *Gebundene Wirtschaft oder Spätkapitalismus.* W. MITSCHERLICH. *Kapital und Kapitalismus.* O. VON ZWIEDINECK-SÜDENHORST. *Eine Auseinandersetzung über das Transferproblem.* A. LÖSCH. *Die Lebenshaltung von Arbeitern der Fordwerke in Detroit.* H. STAEHLE.

Archiv für Sozialwissenschaft und Sozialpolitik.

AUGUST, 1930. *Zur Politik und Theorie der Verteilung.* J. MARSCHAK. The inaugural lecture of Prof. Marschak at Heidelberg. Discusses the essentials of a legitimate scheme of Distribution, with special reference to Production and Purchasing Power. *Die Stellung der Lausanner Schule in der Grenznutzenlehre.* E. QUITTNER-BERTOLASI. Argues that the doctrine of the Lausanne school has prevailed over the Austrian school's view except in dynamic and mathematical economics. *Die Perspektiven der Kollektivierung der russischen Landwirtschaft.* P. PETROFF. The writer was formerly a Communist, and the present article is published for information. The author agrees that large-scale agriculture is preferable, but believes that over-hastiness is likely to cause disastrous results. *Wissenssoziologie und Marxismus.* E. LEWALTER. *Probleme der Strafvollzugsstatistik.* E. J. GUMBEL.

OCTOBER, 1930. *Die Grundformen des menschlichen Zusammenlebens.* W. SOMBART. *Über den Einfluss von Änderungen der Nachfrage auf die Monopolpreisbildung.* E. SCHNEIDER.

DECEMBER, 1930. *Die Geldvermehrung und die "Preisscheren."* A. A. SOKOLOFF. *Die Grundlinien der wirtschaftlichen Entwicklung Russlands,* 1861–1917. A. F. ENOTAJEWSKY. *Über das von einer Familie täglich zu leistende Arbeitspensum und den Rhythmus des Familienlebens.* M. BAUM.

Zeitschrift für die gesamte Staatswissenschaft.

NOVEMBER, 1930. *Berufsbeamtentum in England.* F. M. MARX. A study of the development of bureaucracy in England. *Landwirtschaft und Besteuerung.* W. M. VON BISSING. A critical review of recent proposals. *Die Meistbegünstigung in den Handelsverträgen im Wandel der Zeiten.* J. KULISCHER. On the advantage of the unconditional (European) most-favoured-nation clause over the conditional (American).

Zeitschrift für Nationalökonomie.

OCTOBER, 1930. *The Relation between International Trade and International Movements of Capital and Labour.* B. OHLIN. The classical economists made the theory of international trade part of their general theory of value. Since that theory of value has been discarded it remains to construct a theory of international trade in accordance with modern value theory. The author shows how one can arrive at such a theory of trade. A great number of special cases and types of movements are discussed. *The Relation between Productivity of Capital, Wages, and Interest.* R. VON GENECHTEN. A discussion of Böhm-Bawerk's theory, mainly critical, with an attempt to re-establish the connection between the theories of imputation and interest. The author offers a general solution in mathematical terms. *The Life-work of Knut Wicksell.* E. SOMMARIN. In the author's view, Wicksell's work deserves much more attention, especially on the monetary side, than it has received. (All these articles are in German.)

Jahrbücher für Nationalökonomie und Statistik.

NOVEMBER, 1930. *Wirtschaft und Politik.* J. GRUNTZEL. *Grenznutzen, Indifferenz, Elastizität, Durchschnittsnutzen.* J. NEUBAUER.

DECEMBER, 1930. *Objekt und Methode der Betriebswirtschaftslehre.* A. HOFFMANN.

JANUARY, 1931. *Arbeitslosigkeit und Kurzarbeit.* W. WOYTINSKY. *Gegen einen gewissen Missbrauch mathematischer Formulierungen in der theoretischen Nationalökonomie.* P. LORENZ.

Weltwirtschaftliches Archiv.

JANUARY, 1931. *Die Bank für internationalen Zahlungsausgleich.* E. SALIN. The international economic possibilities of the Bank are much limited by its Statutes. It has not been able to contribute to the smoothing of Reparation payments through an extension of world-trade, nor to solve the problem of Co-operation by a gold clearing. Its strength lies in its function as a deposit bank of Central Banks. *Protection and non-competing Groups.* B. OHLIN. Criticises the recent theory of Manoilesco, that, as manufacturing industry has a higher output per worker than agriculture, it is advantageous to protect the former. The existence of real differences in wages owing to hindrances to mobility is in a certain sense a loss, which can be reduced by protection, though other forms of action against it are preferable. It is argued that Taussig has made a serious mistake in the theory of non-competing groups. *Kapitalbildung und Steuersystem.* H. HERKNER. A discussion of

the Report of the Conference at Eilsen on this subject; including the questions of the contribution to Capital of different scales of income, the causes and range of tax evasion, the influence of taxation on production. The reviewer regards the Report as of great importance to an understanding of the German tax problem. *Die finanzpolitische Bedeutung der Zölle.* R. KÄPPELI. A discussion of tariffs as an instrument of finance–politics. An attempt is made to estimate the consequences of changes especially in agricultural tariffs by a mathematical argument, which is related to the most recent inquiries into elasticities. *Vom Staatsbudget zum einheitlachen Finanzplan.* R. LEONTIEF. A discussion of the Russian financial problem, by reference to the changes created in budget methods since the Five-Year Plan. *Die Finanzierung des russischen Aussenhandels.* E. M. SHENKMANN. Special reference to the banking organisation for the finance of foreign trade since 1922. *Die Entwicklung der europäischen Finanzmonopole in der Nachkriegszeit: die Entwicklung der Tabakmonopole.* H. GROSS. The inquiry is centred round a comparison of costs of production and distribution, which was regarded as the most general expression of the special market strength of the Monopoly. *Die aussenwirtschaftliche Entwicklung Norwegens in der Kriegs- und Nachkriegszeit.* I. WEDERWANG. *Uber die Elastizität des Verbrauchs egyptischer Baumwolle.* C. BRESCIANI-TURRONI.

Giornale degli Economisti.

OCTOBER, 1930. *La XIX riunione della Società italiana per il progresso delle scienze.* G. M. This number of the *Giornale* is devoted to the reproduction of a number of papers on problems of the Corporative State read to the 19th Meeting of the Italian Society for the Advancement of Science. *Il procedimento sperimentale dell' economia corporativa.* U. GOBBI. *La tradizione economica e il corporativismo.* C. E. FERRI. *Economia corporativa e politica economia.* A. LANZILLO. *Legislazione sociale e regime corporativo nel quadro dell' economia scientifica.* R. BENINI. *Le basi teoriche dell' organizzazione italiana del lavoro.* C. ARENA. PROFESSOR GOBBI emphasises the experimental nature of the corporative system of organisation; the aim is the raising of the whole level of the national life, but those directing the system are not bound by adherence to any particular theories or principles in accomplishing their task. PROFESSOR FERRI regards the Corporative State as a return in some measure to the wider and more balanced views expressed by some of the earlier political economists, notably Adam Smith, and as a reaction from the one-sidedness of the socialists on the one hand and of the scientific economists of the modern abstract school on the other. According to PROFESSOR LANZILLO: "The struggle of Fascism against the Liberal State was above all directed against the inertia, the toleration and the scepticism of the Liberal régime in regard to the economic phenomena, especially the class conflicts over the distribution of the national income. . . . The Fascist régime wishes to substitute for the State's attitude of toleration an effective policy, elastic and positive, which will enable the State to participate vigorously in all phases of economic life, both to prevent individual egotistic interests from prevailing to the detriment of other sections of the community and to favour those

economic interests which appear to correspond best to the general interests of the nation." He points, however, to certain possible dangers—firstly, the costliness of the organisation; secondly, the danger of suppressing initiative; and, thirdly, the risk of crystallising the economic system in the event of misuse by the Corporations of their power to prevent the emergence of new enterprises. PROFESSOR BENINI urges the justification on economic grounds of the labour legislation embodied in the famous *Carta del Lavoro*, in view of the weakness of the workers' bargaining power which renders inadmissable the assumptions of a free competitive market for labour. Only the employers can normally regulate their demands by the marginal method, *i.e.* by balancing increments of return against increments of cost; the workers can only balance the *total* utility of the wage offered against the *total* disutility of the work to be performed. There is thus a presumption that the worker will make a worse bargain than the employer, and this justifies the interference of the State in the interests of the workers. PROFESSOR ARENA develops much the same point, though with different arguments, in defending the Italian system of wage regulation—universal (and legally enforceable) collective agreements, with recourse to conciliation boards, and eventually to an arbitration tribunal empowered to make an award binding, not only on the parties to the dispute, but also on all those engaged in the occupation concerned.

NOVEMBER, 1930. *Intorno alla determinazione empirica della domanda e dell' offerta.* L. AMOROSO. A suggestion is put forward for a form of differential equations to represent historical curves of demands and supply. *Cenni sull' influenza esercitata dall' economia italiana classica sulla scienza economica internazionale.* R. MICHELS. An enumeration of the principal early Italian economists with some indication of their influence on the development of economic thought in other countries. *La situazione delle casse di risparmio ordinarie attraverso le vicende della lira.* L. PASSARDI. The Italian savings banks now control funds equal to those of 1913, but the greater part of these funds is invested in State securities; it is urged that they should mobilise these resources by investing on a much larger scale in productive undertakings, *e.g.* in agriculture, hydro-electric schemes, etc.

La Riforma Sociale.

NOVEMBER–DECEMBER, 1930. *Scienza critica e realità economica.* P. JANNACONE. A vigorous criticism of a recent book by U. Spirito entitled *Critica dell' economia liberale*, in which the latter attacks the main body of modern Italian economists on the ground that their work is based on the hedonistic calculus and ignores the wider realities and necessities of the national economic life. *Nota intorno ad alcuni problemi sulla ripartizione dell' oro.* PROFESSOR CABIATI discusses briefly a number of problems connected with the distribution of gold at the present time. *Intorno al contributo sindicale.* G. F. VELLA. The first part of this article consists of a concise and useful summary of the present organisation of the Ministry of Corporations and of the Corporations themselves. This is followed by a discussion of the precise position, within the classification of taxation, of the compulsory contributions levied by the Corporations on their members. It is concluded that these

contributions have the character of a "general" and not of a "special" tax.

De Economist (Haarlem).

OCTOBER, 1930. *Wettelijke regeling van het Accountantswezen.* C. A. BLAZER. A discussion of the position of the accountant's profession in Holland, and of recent proposals for its regulation and for the registration of its members. *Suriname en zijne bankinstelling.* C. F. SCHOCH. A defence of the Bank of Surinam (Dutch Guiana), written by the chief director, against recent criticisms by Professor Verrijn Stuart and Professor van Gijn. These writers reply to Dr. Schoch in two additional short articles.

NOVEMBER, 1930. *Bescherming en Actieve Handelspolitiek.* S. POSTHUMA. A discussion of current protectionist controversy in Holland from the Free Trade position. The author discusses (i) protective duties; (ii) the so-called "active trade policy" which aims at measures to secure a reduction of foreign duties. Protection involves a subsidy of one at the expense of others, but this is not in itself a conclusive argument against protection. That protection be permissible, four conditions are necessary: (i) it must not be at the expense of other industries which are themselves in difficulty; (ii) it must be temporary; (iii) it should promote natural development and not seek to prevent what cannot be prevented; (iv) it must not encroach on the national income. Emphasis in the subsequent discussion is laid on the fact that the burden of protection tends to be shifted to industries which are least suited for the extra burden, and that protective duties likewise postpone a process of adaptation which is nevertheless inevitable. The special circumstances of Holland with regard to the protectionist arguments are detailed. In principle the "active trade policy" is completely opposed to protection, since professedly it aims at lowering duties elsewhere. This "dangerous weapon" is considered, especially with regard to its application to Germany. *Over Landbouwcrises.* G. MINDERHOUD. On the agricultural depression; a reply to an article by Mr. Westerdijk in a previous number, arguing that the view therein taken was too pessimistic. Mr. Westerdijk replies.

NEW BOOKS

British.

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Nations. Washington: The Brookings Institution. 7½". Pp. 409. $3.

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German.

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THE RELATION OF HOME INVESTMENT TO UNEMPLOYMENT

I

THE case for "public works" has often been discussed, and there is a final plea that the advocate almost invariably appends to his argument. It is important, we are told, not to overlook the beneficial repercussions that will result from the expenditure of the newly-employed men's wages. But little is done to evaluate these repercussions in concrete terms. The main purpose, though not the only purpose, of this article is to outline the means by which this gap could be filled, and incidentally to suggest that the case for "public works" may be stronger than is always recognised.

The argument will apply to the effects of any net increase in the rate of home investment. The increased employment that is required in connection actually with the increased investment will be described as the "primary" employment. It includes the "direct" employment, and also, of course, the "indirect" employment that is set up in the production and transport of the raw materials required for making the new investment. To meet the increased expenditure of wages and profits that is associated with the primary employment, the production of consumption-goods is increased. Here again wages and profits are increased, and the effect will be passed on, though with diminished intensity. And so on *ad infinitum*. The total employment that is set up in this way in the production of consumption-goods will be termed the "secondary" employment. The ratio of secondary to primary employment is a measure of these "beneficial repercussions" that are so often referred to.

It will simplify the process of exposition if *expenditure by the Government on roads* is taken as a convenient instance of an increase in home investment. But this simplification must not be taken to imply either that there is anything in the argument that confines its application to investment taking place directly under the auspices of the Government, or that the building of more *roads* is a particularly desirable form of investment.

II

It is necessary, in the first place, to clear out of the way the objection that any reduction of unemployment that is effected by Government action will be at the expense of an equal increase of unemployment in some other quarter. If the Government were to raise the funds required to pay for the roads by means of taxation, it is obvious that unfavourable reactions would be probable. Of these the most important would be the "secondary unemployment" that would result if increased taxation were to reduce the taxpayers' expenditure on consumption-goods. The amount of this "secondary unemployment" would depend on the extent to which increased taxes are paid at the expense of consumption rather than of saving. But that is a matter for separate study; and throughout this article it will be supposed that the necessary funds are raised by means of borrowing.

It is sometimes claimed that if the Government borrows money for the purpose of building roads, this necessitates an equal reduction in the funds available for investment from other sources.[1] But it is clear that even if this claim has any force at all, it cannot have a universal application. For it is always within the power of the banking system to advance to the Government the cost of the roads without in any way affecting the flow of investment along the normal channels. If it assists the processes of thought, it may be imagined that the Government obtains its funds in this kind of way. But it will become clear in the sequel that no such hypothesis is really necessary. For it will be demonstrated later on [2] that, *pari passu* with the building of roads, funds are released from various sources at precisely the rate that is required to pay the cost of the roads.

It is, however, important to realise that the intelligent co-operation of the banking system is being taken for granted. It is supposed that the object of the Central Bank is to achieve the maximum of employment that is consistent with remaining on the gold standard. If the increased circulation of notes and

[1] How important is the influence that has been exerted upon British policy by this claim is forcibly demonstrated by the following information supplied in 1927 by the British Government to the International Labour Office: "While it is not possible to give any specific indications that competition arose with other enterprises owing to the raising by the State of moneys for the various State-assisted employment projects, the decision taken by the Government at the end of 1925 to restrict grants for relief schemes was based mainly on the view that, the supply of capital in the country being limited, it was undesirable to divert any appreciable proportion of this supply from normal trade channels." (*Unemployment and Public Works*, published by The International Labour Office, 1931, p. 30.)

[2] See p. 189.

the increased demand for working capital that may result from increased employment are made the occasion for a restriction of credit, then any attempt to increase employment—whether it is by way of road-building or by any other means, or, indeed, by awaiting the return of world prosperity—may be rendered nugatory.

III

It will be assumed throughout the greater part of this article that money-wages are not raised as a consequence of the reduction in unemployment or of any rise in prices with which the reduction in unemployment may be associated. Even if this assumption is not entirely reasonable, it is clear that it is essential if the analysis is to proceed at all. (But it *is* suggested, though with some hesitation, that over a limited, and not so very limited, range the assumption is not appreciably wide of reality.) To take into account the effects of a possible rise in wages would necessitate, not only an estimate of the amount of the rise, but, far more serious, an analysis of the effect of a rise in wages on the level of employment; and such an investigation must be ruled outside the scope of this article.

An attempt will, however, be made [1] to demonstrate that there is *some* increase in employment even though real-wages are maintained at their former level—or, in other words, if money-wages are raised so as to compensate for the rise in prices. But to the extent, on the other hand, that it is to the reduction in unemployment rather than to the rise in prices that wages respond, there is clearly no method whatever of increasing the volume of employment.

IV

Finally, no account will be taken, in assessing the effects on employment, of any increase in productive efficiency that may result from the Government's expenditure. That, perhaps, is why roads are a good illustration to adopt as an object of such expenditure.

For this reason, too, the argument of this article could, with suitable modifications, be applied to a discussion of the desirability of reducing the Sinking Fund or of the undesirability of reducing the dole.

V

Considerable use will be made in these pages of the expression "saving on the dole." It must be clearly understood that these

[1] In a subsequent number of the ECONOMIC JOURNAL.

words are not intended to imply any moral judgment on the system of unemployment insurance. The word "dole" is used, purely as a matter of convenience, to cover the whole of the expenditure of an unemployed man on consumption, whether it is derived from the Unemployment Insurance Fund, from local authorities, from charity, from borrowing, from his friends and relations or from his own accumulated savings.

For the purpose of developing the argument it will be assumed that when a man obtains work, the "saving on the dole" that results does not have the effect of increasing the consumption of other members of the community. Above all, this assumption presupposes that any change that occurs in the expenditure of the Unemployment Insurance Fund falls entirely on the rate at which the fund is increasing or diminishing its debt and on the amount of the budgetary Sinking Fund. Manifestly this assumption is a somewhat unreal one. Even if contributions to the Fund are not affected, a reduction in the cost of transitional benefit will almost certainly lead to some reduction of national taxation, and a reduction of the rate at which the Fund is getting into debt will lead to some scaling down of the Chancellor of the Exchequer's standards of respectability in regard to Sinking Funds—and so again to a reduction of taxation.

But, in relation to the amount of the saving on the dole, any reduction of taxation that occurs is likely to be small—this will be obvious if consideration is paid to the present level of the real Sinking Fund—and the consequent increase in expenditure on consumption will be still smaller. In so far, however, as it occurs, it adds an *a fortiori* force to the argument of the following pages. The secondary employment is increased if road-building results in less taxation and consequently in greater expenditure by taxpayers on consumption-goods.[1]

VI

I turn now to the often debated question of the effect of Government investment on the general level of prices. This question has been debated from various points of view. It has

[1] If this increase in expenditure were exactly equal to the saving on the dole, and if it were divided between home- and foreign-produced goods in the same proportions as the dole is divided, then the same consequences would ensue as would ensue on my assumption—that there is no such increase in expenditure—if the dole were zero, *i.e.* if the unemployed lived on air. If a greater amount were spent on home-produced goods than would have been spent on home-produced goods if the money had been spent by the unemployed, then the results can be gauged by supposing, on the basis of my assumption, that the dole is negative.

been debated with an eye on the expansion of bank credit that may accompany the building of roads. Somewhat more adapted, perhaps, to the end in view have been the discussions that have centred on the various alleviations that partially set off the increase in purchasing power caused by increased investment. Of these the most important are the saving on the dole and the increased imports of consumption-goods and of raw materials that take place when employment is increased.

But it is, I think, quite clear that a very important, though nevertheless extremely obvious, consideration is usually omitted in these discussions. It is, perhaps, its very obviousness that accounts for its being so persistently overlooked. For the line of approach that will now be taken up is the one that would be followed under the impulse of crude common-sense—there is no room here for analytical subtleties. No claims of originality are advanced for adopting it, but that does not mean that it is not very important.

The price-level and output of home-produced consumption-goods, just like the price and output of any single commodity, are determined by the conditions of supply and demand. If the conditions of supply can be regarded as fixed, both the price-level and the output are determined by the demand; and there is a unique correlation between price-level and output. For a given output of consumption-goods there corresponds a certain price-level of consumption-goods; and this is their price-level quite independently of the causes that are responsible for maintaining the given output. If there is a certain increase in employment on the production of consumption-goods, the change in their price-level is the same whether the increased employment is fostered by large advances from the Central Bank to the Government or whether it is the symptom of the return of prosperity by a more natural route. If this is to be true, it is only necessary that the change shall be actuated by a change in the conditions of demand and not by a change in the conditions of supply. Then the volume of employment engaged in producing consumption-goods and the price-level of home-produced consumption-goods are uniquely correlated. For a given increase in the output of consumption-goods the change in their price-level depends only on the supply curve of consumption-goods in general, the curve being drawn from the point of view of the particular period of time that is under consideration—long, short, or otherwise. If the supply curve rises steeply, there is a large rise in prices; if conditions of constant supply price prevail, there is no

rise in prices; and if the supply curve were falling, there would be a fall in prices.

VII

The relief of unemployment by means of national development is often objected to on the grounds that it will cause a rise in the cost of living. The extraordinary fatuity of this objection is, of course, quite apparent. There is nothing unnatural about the rise in prices caused by the building of roads. It will occur equally if employment in the production of consumption-goods is stimulated to an equal extent by more natural means (other than a reduction of costs). Indeed, if it is an improvement in world economic conditions that is the cause of increased employment, the cost of living will rise by considerably *more* than if the cause is the building of roads. And this for two reasons. In the first place, not only the whole of the secondary employment but also part of the primary employment will in this case be engaged in producing consumption-goods. For part of the primary employment will be engaged in the production of commodities that are to be exported or that were previously imported, and some of these commodities will be identical with commodities that enter into consumption at home. It follows that, for a given volume of primary and secondary employment, the output of home-produced consumption-goods is greater, and therefore the cost of living is higher, if the cause of the change is an improvement in the conditions of world demand than if it is the building of such things as roads, whose production can be carried on without appreciably affecting the condition of supply of consumption-goods. But it is the second reason that is likely to be more important quantitatively. An increase in employment that is part of a general revival in world trade will be accompanied by a rise in the prices of imported consumption-goods (including the supremely important category of food) and of imported raw materials, while the rise in prices that is caused by a purely local policy of road-building will be almost entirely confined to that part of the national consumption that is produced at home. The effect on the cost of living is, therefore, far more serious in the former case than in the latter case.

Even more fantastic is it to argue at the same time that road-building causes a rise in prices and yet that it is not responsible for any *net* addition to the volume of employment. The rise in prices, if it occurs at all, is a natural concomitant of increased output, to a degree indicated by the slope of the supply curve.

It is impossible to maintain at the same time that prices will rise and that there will be no increase in output. If the result, owing to the operation of some mysterious cause, of the construction of roads by the Government is an equal reduction of investment in other channels, there is no secondary employment and no rise in prices. But if it is a fall in the output of *consumption*-goods that compensates for the employment provided on the roads (as might *conceivably* be the case if the Government raises the necessary funds by taxation rather than by borrowing), then the effect of road-building is to cause a *fall* in prices (on the assumption that production takes place under conditions of increasing supply price).

VIII

It should now be clear why it is hopeless to discuss the possibility of a rise in prices in terms merely of the saving on the dole and the increase in imports that result from increased employment. These indeed are two factors, as we shall see later, that determine the amount of the secondary employment. But before it is possible to deduce the magnitude of the change in prices, it is necessary to introduce the slope of the supply curve. Nor is it as simple as that. For the amount of secondary employment itself depends, as will be shown later, on the extent of the rise in prices by which it is accompanied. The two are uniquely correlated, but the amount of secondary employment is effect as well as cause. The amount of secondary employment must be such that, together with the primary employment, it gives rise to just so much alleviation to the original investment (in the shape of saving on the dole, increased imports, and so on) as will account for the rise in prices that is appropriate to that amount of secondary employment. If the supply of commodities in general is perfectly elastic, there can be no rise in prices and the secondary employment must be such as to make it so. If the supply of commodities in general is perfectly inelastic, there can be no secondary employment and the rise in prices must be so great that the net secondary employment is zero.

In general it can be said that, for a given supply curve, the secondary employment is smaller the greater are the saving on the dole, the increase in imports, and the other alleviations that accompany a unit increase in employment. It follows that it is perfectly true to state that the greater the extent of these alleviations, the smaller is the rise in prices that results from a given amount of road-building. But from such a view-point the problem

is liable to assume a peculiarly distorted aspect. It is not merely that there would be a failure to recognise the predominant importance of the supply curve—the fact, for instance, that if supply is perfectly elastic, there *can* be no rise in prices. It might also appear that the claims of road-building as a national policy are stronger if the alleviations (saving on the dole, increase in imports, etc.) are great than if the alleviations are small, because it is when the alleviations are great that the rise in prices is small. But in fact it may just be if the alleviations are great that road-building is least justifiable, for it is then that the *secondary employment* is small—and the "beneficial repercussions" are weak. It is possible to imagine a case—it is very far removed from reality—where unemployed men who are set to work on making roads devote the whole of the net increase in their incomes to goods that have to be imported. There would then be no rise in prices—the alleviations are equivalent to the whole of the original investment. But road-making would be a far weaker economic proposition than it is in fact, for there would be no secondary employment.

IX

Perhaps it is not altogether inappropriate to pause at this point to consider the appearance of our line of approach in the light of Mr. Keynes' new equations. The building of roads represents an increase in investment. But before it is possible to assess the net effect on the difference between savings and investment, it is necessary to bring into the account those alleviations which have already been several times referred to. Payment of the dole represents negative saving, and the saving on the dole represents, therefore, an addition to total savings. An increase of imports, whether of consumption-goods or of raw materials, represents a diminution of the foreign balance and therefore of total investment. If entrepreneurs continue to spend the same amount of money on consumption-goods as before although output has increased, their savings, in Mr. Keynes' sense, have increased. On the other hand, to the extent that non-wage-earners (and wage-earners who were previously in employment) increase their expenditure on consumption-goods irrespective of any increase in total output—whether as a result of the fact that they have more to spend, because of increased profits, or of the fact that prices of consumption-goods have gone up—savings diminish: this is an *aggravation*. The new value of the difference between savings and investment, appropriate to

Mr. Keynes' equations, can only be deduced by subtracting the alleviations corresponding to the total new employment from the cost of the roads, and adding the aggravation.

If the supply of consumption-goods is perfectly inelastic, there is no secondary employment and the problem is considerably simplified. It is only necessary now to consider the alleviations associated with a *known* volume of primary employment—and to subtract the aggravation. Prices rise by an amount corresponding to the difference between the cost of the roads and the amount of these alleviations. If the aggravation can be neglected, the rise in the price-level of home-produced consumption-goods is equal to the increase in expenditure directed towards them by the roadmakers divided by their volume. This is the case when all productive resources available for the production of consumption-goods are already being utilised and, over a certain range of output and over a sufficiently short period of time, it is not possible to increase their output appreciably and there is no incentive for an appreciable reduction of output.

But simplest of all is the case where it is not the supply of consumption-goods that is completely inelastic but *total* employment that is fixed, so that if investment increases, the production of consumption-goods must diminish by an equal amount. Then there is no alleviation, since there is no change in employment, and if in addition the aggravation is negligible, the rise in the price-level of consumption-goods is simply equal to the cost of the new investment divided by their volume. This is the case to which Mr. Keynes' equations apply in their full simplicity. It occurs when the whole of the factors of production are employed, and continue to be employed, in producing either for consumption or for investment.

At the other end of the scale is the case, very much closer to the actual conditions that prevail to-day, where the supply of consumption-goods is perfectly elastic. The price-level of consumption-goods is then constant, and, however great may be the cost of the investment that is taking place in road-building, the secondary employment will be such that the total alleviation (*minus* the aggravation) keeps the difference between total savings and total investment at a constant amount (or, more accurately, at an amount that varies in direct proportion with the output of consumption-goods).

But this conclusion—that under certain circumstances employment can be increased without any significant alteration in the difference between savings and investment—does not in the

slightest degree invalidate the causal force of Mr. Keynes' argument. The motive force that increases employment is an increase in investment or a reduction in savings. As a concomitant of this increase in employment occur other changes in savings and investment which, partially or wholly, neutralise the effect on the difference between savings and investment of the change that is the cause of the increased employment.

X

It should now be clear that the whole question ultimately turns on the nature of the supply curve of consumption-goods. At normal times, when productive resources are fully employed, the supply of consumption-goods in the short period is highly inelastic. The building of roads carries with it little secondary employment and causes a large rise in prices. But at times of intense depression, when nearly all industries have at their disposal a large surplus of unused plant and labour, the supply curve is likely to be very elastic. The amount of secondary employment is then large and the rise in prices is small.

If there is in existence a large stock of surplus resources that are not very inferior to the worst of those that are actually being employed,[1] the elasticity of supply is likely to be very large indeed up to the level of output at which this surplus would be becoming inappreciable. Provided that output is not carried above this level, an expansion of employment bears with it only a very small rise of prices. The greater the depth of the depression, the greater is the expansion of employment that is associated with a given rise in prices. And the greater the expansion of employment that has already been secured by a policy of road-building, the greater is the rise in prices that accompanies a given further expansion of employment; for the short-period supply curve is concave upwards. It is clear, then, that if there is ever any justification for expenditure on "public works" as a means of reducing unemployment, the justification is greatest when depression is most severe; and the scale on which it is desirable that such a policy should be carried on is also then most extensive.

XI

I turn now to a calculation of the ratio of secondary to primary employment, and I begin by assuming that the supply of con-

[1] As is, *par excellence*, the case when the "short-time" method of working plant is in operation over a wide field.

sumption-goods is perfectly elastic over the range that is in question. (The adoption at this point of such a sweeping assumption is to be regarded purely as a means of simplifying the treatment—it would be quite possible, on lines that will be indicated later, to begin with a perfectly general case.) An attempt will be made below [1] to assess the extent to which the results require modification in the light of the conditions that prevail in this country at the moment, and it will be suggested that the modification is not very large.

Let each man who is placed in employment receive a wage W, and let the increase in profits that is associated with the employment of each additional man be P. Let the value of the increase in imports of raw materials and unfinished goods that accompanies the employment of each additional man be R. For the sake of simplicity it will be assumed that W and P are the same for both primary and secondary employment.

Let the employment of each additional man involve a *net increase* in the rate of expenditure on home-produced consumption-goods of mW out of his wages and of nP out of the addition to profits with which his employment is associated. Then the total increase in the rate of expenditure on home-produced consumption-goods is

$$mW + nP.$$

The direct result is a further addition to the volume of employment [2] of amount

$$\frac{mW + nP}{W + P + R} \text{ men}$$

$$= m\frac{W}{W + P + R} + n\frac{P}{W + P + R} = k \text{ (say) men.} \quad (1)$$

It follows that for each man placed in primary employment, the number who receive secondary employment is

$$k + k^2 + k^3 + \ldots$$

$$= \frac{k}{1 - k}.$$

And the ratio of secondary employment to primary employment is

$$\frac{k}{1 - k} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (2)$$

[1] See p. 186.

[2] I am here considering the position in the final position of equilibrium when everything has settled down. But some time will, of course, elapse between the point when the primary employment begins and the point when the secondary employment reaches its full dimensions, because wages and profits are not spent quite as soon as they are earned. I do not enter into the question of this time-lag.

Let the expenditure of an unemployed man (the "dole") be U, and let a proportion m' of the increase that takes place in his income when he becomes employed be devoted to home-produced consumption-goods.

Then $$m'(\mathrm{W} - \mathrm{U}) = m\mathrm{W};$$

or $$m = m'\left(1 - \frac{\mathrm{U}}{\mathrm{W}}\right) \quad . \quad . \quad . \quad . \quad (3)$$

It can be seen that, for every man put to work on the roads, the volume of secondary employment is great to the extent that the dole forms only a small proportion of a full wage, to the extent that a man who becomes employed devotes a large proportion of the increase in his income to home-produced goods, to the extent that a large proportion of any addition to profits that accompanies increased output is spent on home-produced consumption-goods, and to the extent that increased production necessitates the import of only a small proportion of raw materials. The more a country approximates to a closed system and the smaller the dole in relation to a full wage, the greater is the ratio of secondary to primary employment. Now the United States constitute a better approximation to a closed system than do most countries and the ratio of the income of an unemployed American to that of an employed American is notoriously small. It may be expected, therefore, that the ratio of secondary to primary employment is a good deal larger in the United States than in most other countries.[1] A perfectly closed system, to go one step further, is the world as a whole. It follows, as is indeed quite obvious, that an international policy of "public works" would be far more efficacious from the point of view of each separate country than a purely local policy. Finally, as a limiting case, it may be instructive to contemplate a closed system in which there is no dole,[2] and in which any increase in profits that accompanies an increase of output is either negligible in amount or devoted entirely to consumption. One man put to work on the roads would then place all the remainder of the unemployed into secondary employment.[3]

[1] The argument, can, of course, be reversed to deal with the secondary unemployment that accompanies primary unemployment due to a *decrease* in the rate of investment. A slump in the rate of investment spread evenly all over the world would fall more heavily in those regions, like the United States, where the dole is relatively low than in those regions, like this country, where the dole is relatively high.

[2] Or in which any saving on the dole results in an equal increase of expenditure on consumption on the part of taxpayers, etc. (see p. 176).

[3] For a general statement of this possibility, to cover the case when supply is not perfectly elastic, see p. 189 below.

It is a matter of considerable difficulty to make exact, or even at all approximate, estimates of the various quantities contained in the above equations. But it is hoped that, until more precise investigation can be undertaken, the following figures [1] will help to convey some idea of the orders of magnitude that are concerned for the case of this country at the present time.

I shall assume in the first place that the cost of imported raw materials and unfinished goods entering into the *addition* to output that is associated with increased employment constitutes $\frac{1}{10}$ of the *retail* price of the extra product. In other words, $\frac{R}{W+P+R}$ is supposed to be $\frac{1}{10}$. I shall then assume that $\frac{W}{W+P+R}$ (the ratio of marginal wages cost to the price of the product) is $\frac{7}{10}$ and that $\frac{P}{W+P+R}$ is $\frac{1}{5}$.

It also seems reasonable to suppose that when a man becomes employed, $\frac{1}{6}$ of the *increase* in his income is devoted to imported *finished* goods (excluding the costs of transport and distribution, payment for which is to be regarded as expenditure on *home*-produced goods). In other words, I put m' equal to $\frac{5}{6}$.

The estimate of the ratio of the "dole" to a full wage involves some consideration of the type of man who will be drawn into employment by a policy of the kind that is under consideration. It seems probable that a moderate addition to the ranks of the employed would be recruited mainly from the younger of the unemployed, whose families are of less than the average size. It may perhaps be concluded that $\frac{U}{W}$ is rather *less* than $\frac{1}{2}$.

There remains only the quantity n, but here assessment is largely a matter of guess-work. The best that I can do is to suggest that it would be extremely unreasonable to suppose that as small a proportion as $\frac{1}{3}$ of any increase that took place in the rate of business men's earnings [2] would be devoted to home-produced consumption-goods.

The following table is intended to indicate how the value of the ratio of secondary to primary employment, given in

[1] They are based, for the most part, on statistical material that has been placed at my disposal by Mr. Colin G. Clark, to whom I should like to express my great gratitude. But the responsibility for the statistical conclusions that I have attempted to derive from this material rests entirely with me.

[2] The part played by the earnings of small shopkeepers, poor shareholders, etc. is not to be overlooked.

the last column, depends on the values that are adopted for $\frac{U}{W}$ and n.

$$\frac{W}{W+P+R} = \frac{7}{10}, \quad \frac{P}{W+P+R} = \frac{1}{5}, \quad m' = \frac{5}{6}.$$

$\frac{U}{W}$	n	$m = m'\left(1 - \frac{U}{W}\right)$	k (by equation (1))	$\frac{k}{1-k}$
$\frac{3}{7}$	$\frac{3}{4}$	$\frac{10}{21}$	$\frac{29}{60}$	$\frac{29}{31} = \cdot 94$
$\frac{3}{7}$	$\frac{2}{3}$	$\frac{10}{21}$	$\frac{7}{15}$	$\frac{7}{8} = \cdot 88$
$\frac{1}{2}$	$\frac{1}{2}$	$\frac{5}{12}$	$\frac{47}{120}$	$\frac{47}{73} = \cdot 64$
$\frac{1}{2}$	$\frac{1}{3}$	$\frac{5}{12}$	$\frac{43}{120}$	$\frac{43}{77} = \cdot 56$

The first row of figures is possibly on the liberal side, as supplying an estimate of the ratio of secondary to primary employment, but it seems very much more certain that the last row is on the conservative side. If we were to suppose that in actual fact the ratio is $\frac{3}{4}$, we might, it may perhaps be suggested, be erring in the direction of under-statement.

XII

The next step is to make an allowance for the fact that supply is not perfectly elastic. Under the conditions that prevail at the moment it seems reasonable to suppose that the short-period elasticity of supply is not less than 4, *i.e.* that a 4 per cent. increase in the domestic output of consumption-goods would be accompanied by a rise in prices to the *ultimate consumer* of less than 1 per cent. It is now necessary to make an estimate of the elasticity of demand for these goods. If people's expenditure on consumption-goods does not alter when their price-level is raised, the elasticity of demand for them is unity. But actually it seems probable that people would spend rather more on consumption, and save less, if prices were to rise. To the extent that they would do so, the elasticity of demand is less than unity. On the other hand, many classes of consumption-goods meet with foreign competition, either abroad, in the case of exports, or in the domestic market itself, and for them the demand may easily be elastic rather than inelastic.[1] Setting one consideration against the other and assessing each so far as it is possible to do so, I suggest that the demand for home-produced consumption-goods

[1] But the tendency of foreign competition to increase the aggregate elasticity of demand for our goods is offset to some small extent by the rise that takes place in the foreigners' demand curve as a result of the expansion in our imports.

is likely to be inelastic rather than elastic, provided that small changes are under consideration. Let us suppose that the elasticity is unity. A 1 per cent. rise in prices would then, taken by itself, be responsible for a 1 per cent. contraction of consumption, and consequently of output. But we are supposing that a 1 per cent. rise in prices would be accompanied by an increase in output of at least 4 per cent. It would appear then that when the output of consumption-goods expands by 4 per cent., the extra expansion that *would* have taken place if there had been no rise in prices would have been less than 1 per cent.—and the total expansion would then have been less than 5 per cent. It may be concluded, on the basis of the assumptions that have been made, that the fact that supply is not perfectly elastic necessitates a reduction of the estimate of secondary employment of the last section by less than $\frac{1}{5}$. Such a small alteration is, of course, negligible.

But even this conclusion is unduly conservative.[1] It completely overlooks the fact that a rise in prices is the cause of an increase in profits and that part of these increased profits is likely to be spent on home-produced consumption-goods. It can easily be seen that if the whole of the increase in profits that is the direct result of higher prices were spent on home-produced consumption-goods, then, on the basis of an elasticity of demand of unity, output would be precisely the same as though there were no rise in prices at all. And if the demand for consumption-goods has an elasticity less than unity, then the same assumption leads to the conclusion that the rise in prices actually causes the output to be greater than it would be if there were no rise in prices. The less elastic the supply, the *greater* would be the secondary employment! This last result is mentioned here mainly as a *curiosum*—it is unlikely in practice that a sufficient proportion of the increase in profits that results from a higher level of prices would be devoted to home-produced consumption-goods—but the theoretical possibility of its occurring is worth emphasising.

XIII

Let us return for a moment to the case, worked out in section XI, in which supply is supposed to be perfectly elastic. If N

[1] This section, and a considerable portion of the rest of the article, is largely the result of the co-operation that I have received from Mr. J. E. Meade of Hertford College, Oxford. I must content myself with a general acknowledgment, but it will, I hope, be clear that my treatment is fundamentally based on work of Mr. Meade's that is as yet unpublished.

men are placed in primary employment, the total increase in employment is, by equation (2),

$$N\left(1 + \frac{k}{1 - k}\right) = \frac{N}{1 - k}.$$

For each man placed in employment the saving on the dole is U, the increase in imports of raw materials and unfinished goods is R in value, the increased imports of finished goods that result from the newly-employed man's expenditure are $(1 - m')(W - U)$ in value, and the sum of the increase in unspent profits and of the increase in imports of finished goods to which the newly-accruing profits are devoted is $(1 - n)P$. The total sum of these items is

$$\begin{aligned} & U + R + (1 - m')(W - U) + (1 - n)P \\ &= W + P + R - (mW + nP), \text{ by equation (3)} \\ &= (W + P + R)(1 - k), \text{ by equation (1).} \end{aligned}$$

But we have seen that if N men are placed in primary employment, the total increase in employment is $\frac{N}{1 - k}$. It follows that the sum of these items is $N(W + P + R)$, which is precisely the value of the product of the primary employment, *i.e.* the cost to the State of the roads.

We have then the following relation :—

Cost of investment = saving on dole + increase in imports + increase in unspent profits.

The last head comprises that part of the increase in profits that is devoted neither to home-produced consumption-goods nor to imported goods.

Now this relation, far from being the logical consequence of summing an infinite geometrical progression, is in reality self-evident in nature and is merely a particular case of a general relation, due to Mr. J. E. Meade, that covers the case when supply is not perfectly elastic, so that prices rise when employment increases. This general relation is a derivative form of Mr. Keynes' formula for profits.[1] In its most general form Mr. Meade's relation runs as follows :—

Cost of investment = saving on dole + increase in excess of imports over exports + increase in unspent profits — diminution in rate of saving due to rise in prices.

[1] It is to be noted that the word profits is here being employed in the ordinary sense of the difference between business men's receipts and their outgoings, and not in the sense in which Mr Keynes employs the word. But it is clear that Mr. Meade's relation is merely a special statement of Mr. Keynes' general proposition that "profits" are equal to the difference between investment and savings.

In this equation the second term on the right-hand side includes both the effect of increased employment in causing an increase in the volume of imports of consumption-goods and of raw materials and the effect of higher prices in causing an increase of imports and a reduction of exports. The third term comprises the unspent portion (*i.e.* spent neither on home-produced consumption-goods nor on imported goods) of the profits that emerge as a result both of greater output and of higher prices. And the fourth term allows for the increase in people's expenditure that may result when prices go up.

The relation can be deduced in an *a priori* kind of way by considering that money paid out by the Government to the builders of roads continues to be passed on from hand to hand until it reaches one of the *culs-de-sac* indicated by the various terms on the right-hand side of the equation. By utilising it as a basis, it should be possible to deduce a formula for the ratio of secondary to primary employment that is applicable whatever may be the elasticity of supply of consumption-goods.

This relation should bring immediate relief and consolation to those who are worried about the monetary sources that are available to meet the cost of the roads. The increase in the excess of imports over exports is equal, if gold is not flowing at an appreciable rate, to the reduction in foreign lending. So that if one is looking for sources *outside* the banking system, they are available to precisely the right extent. The cost of the roads is equal to the saving on the dole *plus* the reduction in foreign lending *plus* the increase in unspent profits *minus* the reduction in the rate of saving.[1]

In a closed system, such as the world as a whole, the second term of Mr. Meade's relation is *ex hypothesi* zero. If, in such a closed system, there were no dole (*i.e.* the unemployed lived on air) and the newly-accruing profits were devoted in their entirety to consumption,[2] the ratio of secondary to primary

[1] There are some who maintain that if a tariff causes an increase of foreign lending, lending at home must necessarily be contracted in an equal degree. Without entering at all into the question of the general validity of their point of view, it would appear possible to defeat them *on their own ground* by using an argument precisely analogous to the argument of the text. For if a tariff is successful in causing an increase in foreign investment, funds will be released, and will—if one likes to think of it in that kind of way—be available for foreign lending, to an extent exactly equal to the increase in foreign investment—just as the building of roads (home investment) releases funds exactly equal to their cost.

[2] Or, more accurately, if the newly-accruing profits remained unspent at a rate equal to or less than the rate at which savings are diminished as a result of the rise in prices.

employment would be infinite. No matter how small the elasticity of supply of consumption-goods, "one man put to work on the roads would then place all the remainder of the unemployed into secondary employment." Such a system would, of course, be unstable. A small decrease in the rate of investment would result in everybody becoming unemployed.[1]

XIV

I turn now to the question of the quantitative importance of the saving on the dole. Mr. Meade's relation tells us that it falls short of the total cost of the roads by an amount equal to the increase in the excess of imports over exports *plus* the increase in unspent profits *minus* the diminution in the rate of saving that may be brought about by the rise in prices. In a closed system there can be no change in exports or imports, and if only the increase in unspent profits were less than the diminution in the

[1] It may, finally, be of interest to notice how Mr. Meade's methods can be applied to deal with the controversy that is at present raging as to the effect on a country's exports of a reduction in its imports. If there is no change in the rate of home investment, either in this country or in the rest of the world, the effect of a tariff on this country's imports can be represented as follows. (For the sake of simplicity the effect of an alteration in prices on the rate of saving is omitted. *It can easily be brought in if its presence is desired.*) *For this country* :

Decrease in excess of imports over exports = saving on dole + increase in unspent profits.

For the rest of the world (considered as a single country) :

Decrease in excess of exports over imports = loss on dole + diminution in unspent profits.

If it were supposed that in the rest of the world there is no "dole" (*i.e.* the unemployed live on air) and that business men reduce their expenditure on consumption to the full amount of any reduction in their profits, then it would be quite true that our tariff would cause such a large reduction in the foreigner's volume of output and employment that his purchases from us would fall by an amount precisely equal to the reduction of our imports. Exports then *would* pay for imports, even under those short-period conditions that underlie the argument. But this conclusion depends essentially on assumptions of an extraordinary degree of absurdity; and an examination of the actual conditions that prevail would, it may be supposed, lead to a result of an entirely different order of magnitude. Moreover, if we *are* to make absurd assumptions, it is hard to see why this country should not be allowed to participate. Let us therefore suppose that, in this country also, there is no dole and that business men devote to consumption the whole of any increase in their profits. Then it would follow from the above equation that the imposition of a tariff would cause such a large increase in the volume of our output and employment that (leaving on one side, as irrelevant to the present argument, the effect on our exports of a *rise in their price*, as opposed to that of a fall in the foreigner's demand curve) our imports would not contract at all in the aggregate. We might import less manufactured goods, but we should import more food and raw materials. Exports would pay for imports—yes, but a tariff would cause no net reduction in our imports.

rate of saving, the saving on the dole would more than cover the cost of the roads. Now the world is a closed system. It follows that an international policy of digging holes and filling them up again would result in a net gain to the united treasuries of the world, provided only that business men could be persuaded to be sufficiently spendthrift with the additions to their profits which such a policy would secure for them. Such a hope is almost certainly a vain one. But no account has been taken of the increase in the yield of taxation that would accompany an expansion of output and of employment. If the treasuries of the world were to gain as increased revenue an amount equal to the excess of the increase in unspent profits over the diminution in savings, the promotion, on an international scale, of perfectly useless "public works" would still be profitable, even from a narrow budgetary point of view. We are probably still a little way off reality—but can it be so very far?

To consider international action of this kind is perhaps a little premature. More interesting is the question of the cost that this country would be involved in if it were to act alone. Part of the benefit without any of the cost would then accrue to other countries. To the internationally minded this should not be an objection—indeed this is one of the main respects in which the stimulation of home investment is superior to the stimulation of foreign investment. Moreover, the adoption of a policy of this kind by this country would, by the force of example, induce other countries to adopt similar policies, in whose benefits we should then take a share. But I am content to consider the case where this country acts alone and where the benefits received by the rest of the world are left out of account. It follows from Mr. Meade's relation that under conditions in which in a closed system the building of roads would *just* be a sound proposition (from the narrow budgetary point of view), the national debt, if a single country acts alone, will be raised by the value of the increase in imports (and reduction in exports) which the building of roads will bring about.

XV

But let us consider the saving on the dole in the case of this country in concrete terms. Let it be supposed that expenditure on road-building and other forms of home investment increases by £50 million per annum. The primary employment can then be supposed to amount to 250,000 and, on the basis of a ratio of $\frac{3}{4}$, the secondary employment will be 187,500—to make quite

certain let us call it 150,000,[1] so that the total employment will be 400,000. If the dole amounts on the average only to 25*s.* a week, the saving to the Unemployment Insurance Fund will be £25 million per annum, which is just half the total cost. This £25 million the Exchequer can then afford to contribute out of its own resources—that is to say, out of the Sinking Fund in so far as the saving on the dole diminishes the rate at which the Insurance Fund is getting into debt, and out of the ordinary budget to the extent that the saving is in respect to the cost of transitional benefit.

We still have to allow for the increase in the yield of taxation. For each man who is put into employment the money-income of the community increases by considerably more than £120 per annum (say in the form of profits £30 *plus* such increase in the value of output as a whole that takes place as the result of the rise in prices, and £90 as the difference between the wage and the dole). It seems reasonable to suppose that of this amount at least £15 will be paid to the Exchequer in the form of taxation. It follows that if employment is increased by 400,000, the revenue will expand by £6 million—and clearly this is an extremely conservative estimate.

At any rate it would appear safe to conclude that the Exchequer would actually reap a net gain if it were to subsidise capital investment to the extent of *one-half* the capital sum involved. A necessary condition is, of course, that the work would not be undertaken if no subsidy were forthcoming. This condition severely restricts the field over which subsidies to investment are applicable. But even if the Treasury were to confine itself to railway companies and local authorities, it might reasonably be expected that the payment of subsidies of one-half of the capital cost would induce a very substantial increase in the rate of investment.

Let us now take the case where the whole cost is borne by the State. Let us suppose that the Government, national and local, spends the £50 million per annum for three years, at the end of which time conditions may be imagined to have improved. Then if a saving of only one-half is allowed for, the addition to the national debt (including the debt of local authorities) will be £75 million, which, at an average rate of interest of 3½ per cent., amounts to an annual charge in perpetuity of a little over £2½ million, or about $\frac{1}{15}$ per cent. of the present national income and

[1] This is what the secondary employment would be if the ratio of secondary to primary employment were only $\frac{3}{5}$.

¼ per cent. of the revenue raised by taxation. For this, 400,000 men are put into employment for three years and £150 million, equal in money-value to about ¾ per cent. of the national capital, are spent on capital works. To suppose that the consequent increase in efficiency could lead to an automatic expansion in the yield of taxation equal to the whole of this interest charge of £2½ million would be quite unjustifiable—particularly when account is taken of the reduction in foreign investment that is associated with this increase in home investment—but the increase of efficiency should certainly be taken into account if one wants to consider how a policy of public works at the present time would affect the budgetary problems of the future.

I turn now from the budgetary to the national standpoint. At first sight the natural line of approach might appear to be to regard the increase of £2½ million in the interest payable on the national debt as a burden on posterity and to measure against it the increase in their national income that would result from £150 million having been spent in the past on schemes of a greater or less degree of permanent utility and from 400,000 men having been given work to do for three years instead of having lived in idleness. If this view were correct, it would be sufficient to show that the national income of posterity would be increased by at least £2½ million as a result of this expenditure of £150 million, and then the policy would be fully justified without taking into account any of the benefits that it would confer on the present generation.

XVI

But this view is, of course, fallacious. The payment of interest on the internal debt is not a burden in the real sense of the term—it is a case of transfer expenditure. It is only if the policy results in a reduction of posterity's income that it can be said to inflict a real burden. The only respect in which such a burden can be inflicted is as a result of the reduction in foreign investment that results from the policy. The expenditure of £50 million per annum for three years might reduce our annual balance of trade by, say, £20 million per annum, resulting in a total diminution of our foreign investment of £60 million. The loss of interest from abroad on this £60 million represents, taken by itself, a real burden on posterity. But against it has to be set the benefits that will be permanently derived by increasing the national equipment at a cost of £150 million and by rescuing 400,000 men for three years from the

deteriorating influences of involuntary idleness. It can scarcely be doubted that posterity would inherit an asset rather than a liability as a result of such a policy as we are considering.

But even if there *were* a net real burden on posterity, it would still remain to set against its discounted value the benefit that would be derived by the present generation. Here the problem is a simple one, at any rate so long as the community is regarded as a single entity. The aggregate consumption of the community is necessarily increased as a result of a policy of "road-building," for both the production and the importing of consumption-goods are stimulated. This increase in consumption is a measure of the benefit received by the present generation.

And so long as the building of roads does not involve any diversion of resources away from the production of consumption-goods, it will continue to add to the rate of aggregate consumption of the community. Provided then that it does not result in an actual decrease in the rate of accumulation of capital, material and immaterial, *i.e.* provided that the benefit conferred at home is greater than the loss in respect to foreign investment, as it almost certainly would be—there would appear to be no limit to the period of time during which it would be desirable to continue this policy of public works, except the very important one imposed by the condition that the factors of production employed in building the roads would, if the roads were not being built, remain unemployed.

But this conclusion reaches too far. The progressive increase in the rate of taxation that is necessitated when the national debt increases faster than the national income only fails to involve any real burden on the community as a whole if its "announcement" aspects can be neglected. As the rate of taxation becomes higher and higher, the "announcement" effects become more and more serious—and it is on these lines that one would have to assess the undesirability of progressively increasing the national debt or of permanently retarding its liquidation.

So far we have considered the community as a whole. It remains to say a word about the effect of road-building, while the roads are being built, on the real incomes of the various constituent classes of the community. There are two classes whose real incomes are certainly increased—the newly employed and the business class—and, to the extent that prices rise, there are two classes whose real incomes are diminished—those who were already *fully* employed and the *rentier* class. It has already been said that the real income of the community as a whole is

increased. But of more interest is the effect on the real income of wage-earners as a whole, taking employed and unemployed together.

This involves the question of the rise in prices that would accompany an increase in employment. Under the conditions that rule at present it seems certain that if 400,000 were put into employment, primary and secondary, the real value of the aggregate income (wages *plus* dole) of the wage-earning class would increase. But under conditions in which the supply of consumption-goods were considerably less elastic than it is likely to be to-day it is quite possible that an increase of employment, brought about in this kind of way, would entail a reduction of the real value of wage-earners' aggregate income. But even then it would not necessarily follow that it would be contrary to the interests of wage-earners as a class for a policy of national investment to be adopted. It is too often forgotten that the main purpose of schemes of this kind is to *reduce unemployment*, and that unemployment does not fail to be an evil when its persistence involves a higher real income to the wage-earning class than would otherwise be obtainable. If this were not so, it might often be in the interests of wage-earners to advocate steps that would still further increase unemployment. But unemployment is an evil in itself, it is an evil on account of the *maldistribution* of the wage-earners' aggregate income that it usually causes, and it is an evil, together with the depression of the industrial system with which it is generally associated, on account of its effect in retarding the rate of economic progress.

XVII

It is necessary, finally, to turn to the effect on the foreign exchanges of an increase in the rate of home investment. Increased employment means increased imports of raw materials and finished goods and, to the extent that prices rise, there is a further increase of imports and a decrease of exports.

The result is that the net amount lent abroad by this country has to be reduced. It has been suggested above that the employment of 400,000 men might mean a reduction in the balance available for foreign lending of £20 million per annum. Unless other factors are brought into operation, this reduction in lending has to be effected by a rise in the various rates of interest. If other things remain equal, there ensues some decrease in the home investment that flows along normal channels, and this partially offsets the increase in investment that takes the form

of road-building. It is important to assess the magnitude of this counteracting effect. Two factors are involved :—(*a*) the sensitivity of foreign lending to the rate of interest, and (*b*) the sensitivity of home investment to the rate of interest. It seems reasonable to suppose that, provided that the change that is under consideration is a fairly small one, the sensitivity of foreign lending to a rise in the rate of interest is considerably larger than the sensitivity of home investment. Moreover, under the conditions that prevail in this country at the present time, an increase in home investment, in the form of road-building, provided it is not undertaken on too large a scale, will result in a considerably smaller diminution in the amount available for lending abroad. It may therefore be concluded that it is not necessary to make any substantial deduction in respect to the effect of the rise in the rate of interest.

But if an attempt is made to increase home investment by a very considerable amount, the reduction in foreign lending is likely to be relatively greater—because a less elastic portion of the supply curve for consumption-goods will now come into operation and because the demand for goods that meet with foreign competition is likely to become more elastic as their price is raised.[1] It also seems likely that the sensitivity of home investment to a rise in the rate of interest becomes greater as the extent of the rise in the rate of interest is increased. It may, therefore, be concluded that the case of an extremely bold policy of road-building might necessitate more serious consideration of the effects of the rise in the rate of interest on home investment. But even then it must not be forgotten that the whole point of a policy of public works is that it enables an increase in the rate of home investment to take place without that *fall* in the rate of interest that would be necessary if we were relying on private enterprise. The fact that it necessitates some rise in the rate of interest is not in itself a valid objection.

But there are available, of course, methods for curtailing, partially or completely, the necessity for this rise in the rate of interest. In the first place, there are the various devices that could be employed with the object of restricting the freedom of foreign lending. Secondly, there is the possibility of combining

[1] On the other hand, the ratio of secondary to primary employment is likely to be less and, therefore, the ratio of the increase in employment (to which a portion of the increase in imports is directly proportional) to the cost of the roads is likely to be less. It follows that the reduction in foreign lending *may* be relatively less when many roads are being built than when only a few roads are being built.

a vigorous policy of home development with the imposition of a tariff. By combining the two measures in suitable proportions, it would be possible to maintain the value of imports at its present level. In this way each would be freed of one of the main objections that can be raised against it. The strain inflicted by road-building on the foreign exchanges would very largely disappear and the tariff would fail to impoverish our customers.

So far it has been supposed that a policy of national investment has no influence on the schedules of people's desire and ability to carry on investment at home and to lend abroad. This is a manifestly unwarranted supposition, but two opposing forces have to be reckoned with, and it is not at all clear where the issue lies.

An increase of output, and of the margin of profit that goes with it, cannot, taken by themselves, fail both to increase the attractiveness and to facilitate the process of investment at home. It is quite obvious that this effect is of great quantitative importance. If there were no opposing forces in operation, it might easily happen that, in spite of the rise in the rate of interest, the ordinary processes of home investment would be promoted rather than retarded by a policy of public works.

This supposes that the state of general confidence is not affected. There is strong justification for concluding on *a priori* grounds that the inauguration of an active economic policy would promote confidence rather than upset it. But this is not a valid reason for disbelieving the warning, so frequently put forward at the present time, that an extensive policy of public works would promote a feeling of distrust. For the state of confidence is a function of what people are thinking, even though their thinking may be completely irrational, and therefore only those who are in touch with the minds of the people are competent to pass judgment on this question.

A lowering of confidence may operate in two ways. It may, in the first place, reduce people's willingness or ability to carry on real investment at home. But also of great importance is its effect in increasing people's desire to hold their money abroad rather than at home. To the extent of the increased pressure to lend abroad, to which the phrase "flight from the pound" is often employed to give exaggerated prominence, the rise in the rate of interest that is necessary to protect the exchanges becomes greater, and its depressing influence on the rate of home investment also becomes greater.

But it is very difficult to believe that the dangers are as great

as is often suggested. There can be no doubt that close contact with men of affairs must lead further towards a realisation of these dangers than can *a priori* reasoning. The only question is whether it may not lead too far. When a practical man declares that a policy of national development would result in a "flight from the pound," his judgment is really valuable only if he means that he himself would fly from the pound—and if he really would undertake the flight when the occasion arose. But too often the economic theory held by the business man bears little relation to his own practices—it is only if the practices of himself and of others like him were different from what they are that their theories could be correct. When a business man's theory involves a hypothesis about men's behaviour to which his own individual conduct fails to conform, he cannot be regarded as a very much sounder judge than the theoretical economist.

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MARSHALL'S TIME ANALYSIS

As early as 1881 Marshall was conscious of difficulties in economics because events are not continuous in time. He would write of normal results in order to meet the problem, but "admitted that there are several difficulties in the way of a precise definition of the period of time to which normal results apply . . ."[1] The difficulties were not seriously grappled with until the publication of the *Principles*, which is marked in its successive editions by an increasing concern with the time problem. Neo-Marshallian thought in England has absorbed Marshall's main division between long and short periods, although it is not unconscious of the imperfections in the analysis.[2]

Unnecessary difficulties exist in Marshall because he also stressed the continuity of time in nature and considered that the construction of time divisions to achieve logical precision involved loss of touch with real life.[3] There is confusion here because he temporarily overlooks the fact that the time problem arises from the discontinuity of economic events in time. The confusion worried him, because it was continually turning his mind towards the conflict between theoretical construction and the applicability of theory to "practical life." An appeal to analogy in physics, where time is often measured in terms of operations other than the rotation of the earth on its axis, would have made clear the relation of the tool which Marshall was forging, to Nature's continuous time.[4] When he distinguished long and short periods he was not using clock-time as his criterion, but "operational" time, in terms of the economic forces at work. Supply forces were given the major attention, and a time was long or short according as it involved modifiability or fixity in some chosen

[1] *Economics of Industry*, second edition, p. vii.

[2] Cf. *Memorials of Alfred Marshall*, pp. 43 and 417; and Edgworth, *Papers*, vol. II, p. 215.

[3] Professor Robbins is wrong (ECONOMIC JOURNAL, 1930, p. 200 note) in suspecting me of "the opinion that the aversion from heroic abstraction was a virtue in Marshall in that it made his constructions more realistic." My thesis in "Die Quasirente in Marshalls Lehrgebäude" (*Archiv für Sozialwissenschaft und Sozialpolitik*, Bd. 60, H. 2.) was, in fact, the necessity of ignoring the confusing references to the surplus aspect of rent in order to get a logical interpretation of Marshall's doctrine of quasi-rent.

[4] Cf. P. W. Bridgman, *The Logic of Modern Physics*, 1927, pp. 69 ff.

forces on the supply side. The greater the modifiability of the supply forces the longer the period of time under discussion, irrespective of the length in clock-time.

Thus the fundamental idea is a very simple classificatory device. Yet Marshall was continually led into confusion, by making indefinite allusions to the continuity of clock-time, and was even driven to assert that the occasions when it is necessary to separate long and short periods sharply are "neither frequent nor important."[1] The use he makes of the tool, however, shows that short and long periods are necessarily divided by definition, since all periods are short during which changes in the supply of factors of production cannot exert a direct influence upon prices of commodities; and periods are long *per contra* which exhibit this direct influence. The distinction may vary, because different assumptions may be made with respect to what is included in "factors of production." In this sense short and long periods may "shade into one another," but the shading has nothing to do with the continuity of time in Nature. The device is directly connected with the method of abstraction which is, according to Marshall, a part of the method of this as of other sciences. In fact it may be said to be an example of the bit-at-a-time method, which isolates forces by assuming that other forces whose effects follow more slowly are non-existent.

The various editions of the *Principles* abound in false leads traceable to this time confusion. It was the reappearance of the idea of continuity in clock-time that brought Marshall to the concept of the stationary state. The latter is less prominent than what he liked to call the "statical method"; he does not discuss explicitly the relation of either to the bit-at-a-time method in general, or to the time analysis in particular, but since the relation is close, it will receive considerable attention in the following exegesis.[2]

I

A famous footnote[3] introduces the stationary state. After asserting that the varying lengths in clock-time of a long period prevent "any rigid division being made between long and short

[1] *Principles*, first edition, p. 416.

[2] I have substantially collated all the editions of the *Principles*, for this and other purposes, and I find the comparison illuminating. Many changes are only in schemata, and not important for the exegesist; but they would be most troublesome if Professor Robbins' excellent suggestion of a *variorum* edition were pursued.

[3] *Principles*, first edition, p. 416.

periods," Marshall adds, "in fact a theoretically perfect long period must give time enough to enable not only the factors of production of the commodity to be adjusted to the demand, but also the factors of production of these factors . . ." *ad infinitum.* "And when carried to its logical consequences, this will be found to involve the supposition of a stationary state in industry." No comment is added, and we are left to surmise the significance of these "logical consequences" for Marshall's time analysis. Yet it is clear that Marshall's own analysis need not be pushed to such a logical extreme. The same kind of criterion which distinguishes short from long may be used to distinguish long from longer periods.[1] A selection may be made among the forces so as to exclude from consideration changes in factors of production beyond the first order.

This may explain why Marshall insisted upon the difference between his and Clark's analysis. It is easier to reason about a stationary state than about an approximation to a theoretically long period; the assumption initially of a broad range of fixed conditions annihilates a great part of the Marshallian analysis, and achieves immediately even less approximation to real life. The useful part of the stationary state hypothesis comes with the introduction of relaxing, disintegrating assumptions. With the first relaxation a relatively small area is isolated, which can be concentrated upon. Marshall would arrive at his small isolated problem directly without first setting up the hypothetical mammoth; and he might never build up his shorter or longer period analysis into a theoretically perfect long period. Hence there was some point in his emphasising his static *method* against Clark's static state, while at the same time admitting that fundamentally they might amount to the same thing.[2] There may be important differences in consequence of using the methods. The employment of the "static state" constitutes a real temptation to dwell unwisely upon the action and reaction within a mighty fiction—

[1] Mr. Harrod has stated this point differently. He would take a definite length of time, *s*, and classify "short-period supplementary costs . . . into those which are prime and those which are supplementary relatively to *s*" (ECONOMIC JOURNAL, 1930, p. 236). Since *s* is arbitrarily chosen, prime and supplementary relative to it will depend upon the modifiability of the supply of the various factors of production in the time *s*. But also the "short-period supplementary costs" decomposed with reference to *s* depend for their attribute "supplementary" upon the modifiability of supply in some other interval of time. The operation is being performed twice over, and the significance of *s* is that of a base line.

[2] *Memorials*, p. 415. And see especially the most illuminating note in the preface of the fifth edition of the *Principles*, p. xii.

to indulge in Gedankenspielerei; whereas Marshall's method of dissection must pass, step by step, his scrutiny of real life, making it difficult to accumulate cobwebs.

It is true Marshall could not put the stationary state concept wholly behind him. He suggested in the first edition that the supposition of an "almost stationary state" is the best introduction to distribution and exchange.[1] Actually, little or no use is made of the suggestion, and in the second edition the idea is dropped. But while the concept lost ground in Book VI, it gained in Book V, where it was used in connection with a new discussion of average and aggregate expenses of production.[2] In the real world, where conditions are changing, "average" or "aggregate" expenses of production have no exact and definite meaning. The reason is that the values of appliances of production (and therefore the costs relative to them) cannot be taken for granted without reasoning in a circle. Yet the concept may be used for special purposes "with an artificial interpretation clause." The only example given is the case of a stationary state—this time "perfectly stationary." There, knowledge and prediction would be perfect, expectations would always be realised, costs would be all direct and definite, and time would bring no problems.

It is difficult to discern "the many points in economics" which are usefully illustrated by the hypothesis of such a stationary state. No explicit statement is forthcoming from Marshall. At the most the purpose would seem to be the negative one of showing that things are not so simple when different events occur with the passage of time. In fact a pretty summary rejection of the device is implied when Marshall objects that "it is the nature of such hypotheses to be treacherous guides if pursued far away from their starting-point; they soon lead us into a region of unreal abstractions, and, in particular, this one is not suitable for that part of the *pure theory* of equilibrium of normal demand and supply . . . which relates to industries that obey the Law of Increasing Return . . ."[3]

[1] First edition, p. 540.

[2] Second edition, pp. 480 ff., and third edition, pp. 500 ff. Marshall says (second edition, p. 480) that the preceding chapters have thrown some light on the relation of normal supply price to "so-called 'average' expenses of production"; but I can find no explicit treatment of average expenses or average supply price before this point. Nor can I find anywhere a definition of "so-called average" expenses.

[3] *Ibid.*, pp. 484–485, my italics. It was at this point that the analysis relating to the Particular Expenses Curve was first introduced, apparently to illustrate the special case of a stationary state. The latter is discussed further below.

There remains, however, the statical method, first considered in the second edition, where it is introduced in the discussion of the difficulties which spring from the impossibility of discussing "at once the effects of all the causes at work." Provisional abstraction from some causes is necessary, and results in a certain rigidity in the demand and supply schedules which does not really exist. This difficulty is a special case of the more general one involved in the statement that "economic problems are imperfectly presented when they are treated as problems of statical equilibrium, and not of organic growth."[1] Yet the statical treatment is a necessary introduction, because it "alone can give a definiteness and precision of thought." As an analytical device Marshall did not consider it perfect, and thought a great advance might be made if the changes in the forces abstracted from could be expressed as a "function of time itself." In particular this would mean expressing "normal demand and supply price as functions both of the amount normally produced and of *the time at which* that amount *became* normal."[2] At least efforts to extend

[1] Second edition, p. 496.

[2] *Ibid.*, my italics. This statement recurs in all the editions. The exact meaning would be clearer if Marshall had devoted a note in the Mathematical Appendix to elucidate the nature of the functional relation between price and "the time at which that amount became normal." The point is an important one; yet the fact that it concerns so many parts of Marshall's theory compels me to restrict the consideration of it here to a note. Some passages relevant to the above-quoted statement disclose Marshall's doubts and perhaps provide a clue to his meaning. In the third edition he explains in a footnote that the advance in theory would involve the use of three co-ordinate diagrams—demand and supply surfaces instead of normal demand and supply curves (p. 516, note 2). The improvement envisaged is to "represent roughly, as a function of time itself, the chief of the changes in those elements which we are not especially considering" (p. 516, omitted in the fourth edition). He adds, "events external to the special changes which we are considering" (which cause changes in price other than those due to a change in the volume of output) "*may* cause the prices set against any given annual (or daily) consumption and production of the commodity to cease to be its normal demand and supply prices for that volume . . . [and] *may* render it necessary to make out a new demand schedule or a new supply schedule . . ." (p. 517, my italics—omitted in the fourth edition). Marshall does not comment upon the qualification implied in the use of the conditional. In any case he seems to be concerned with the difference between the theoretical and the historical curve.

In the fourth edition a different obstacle in deriving the "function of time" is selected for discussion, that due to the varying lengths of time required to realise the different economies pertaining to different increases in the scale of production. The complex device of surfaces built out of curves is suggested as a means of getting "much nearer to nature." The curves, say n in number, would depict the economies resulting from increasing output when the time over which the increases were spread was allowed to vary from, say, one to n years by intervals of one year. Each curve would have on it *one* point representing "the amount which, so far as can be foreseen, seems likely to be the normal amount *for the year to which that curve related*"; and the group of such points would

the analytical device in this way might lead to improved "methods of study of social and economic history and statistics" with the object of filling many empty boxes.

If we ask whether the static method was used by Marshall to impart definiteness and precision to economic thinking it will be necessary to consider the particular case above-mentioned, the assumption of rigidity in the demand and supply schedules. In the privately printed chapters on "The Pure Theory of Values," curves were said to be rigid when in the passage of time it was possible to proceed or recede along the curves. The assumption of rigidity cannot be carried over to practical problems of shrinkage in supply, but only to problems of the resistances which must be overcome before an increase in supply is possible. In cases of recession the retention of economies necessitates re-drawing the curve. Rigid curves would seem, according to Marshall's view here, to do greatest service in suggesting practical problems rather than in deducing practical conclusions.[1]

The same kind of idea was expressed in 1890, but with a different

form a curve which "would be a fairly true long-period normal supply curve . . . of increasing return" (pp. 519–520, note 3, my italics). Marshall would probably regard this as an elaboration of the theoretical curves of the third edition (*supra*), but he neither discusses the shape of the individual curves nor raises the question whether the derived curve is historical or theoretical.

A later footnote (third edition, p. 518, fourth edition p. 524, seventh edition, p. 463) is also pertinent. It asserts unqualifiedly that a change in normal demand and supply prices involves drawing a new curve. "If the change is *gradual*, the supply curve will assume in succession a series of positions . . . and in this way we might have represented the effects of that gradual improvement of industrial organisation which arises from an increase in the scale of production, and which we have represented by assigning to it an influence upon the supply price for long-period curves" (my italics). Reference is then made to Cunynghame's proposal that "a long-period supply curve should be regarded as in some manner representing a series of short-period curves," each individual curve assuming throughout "that development of industrial organisation which properly belongs to the scale of production represented by the distance from Oy of the point in which that curve cuts the long-period supply curve. . . ." The proposal is neither accepted nor rejected explicitly, but the *Memorials* (p. 451) suggests the latter. Nor is any hint given that it is connected with Marshall's own vision of a surface representation—unless, indeed, the persistent and apparently irrelevant reference to the matter finally included in §3 of Appendix A is a misdirection. It may be that Marshall intended the assumption of gradual change (supplanting the assumption of changes attributable to an increase in production *per se*) to justify his representing the effects in a normal supply curve instead of in a more complex surface diagram. The main problem of the line of division between phenomena which he includes in the normal supply curve and phenomena which he assumes to cause a shifting of the curves remains undecided. But it seems clearly open to him to admit that any given curve has a limited theoretical scope, and that "curves" built out of shifts in curves may be purely historical records.

[1] *The Pure Theory of Domestic Values* (1879), pp. 13–14.

twist. An assumption of "a certain rigidity" in the demand and supply curves is involved in the "most abstract form" of the theory of equilibrium. The rigidity does not exist, but the theory assuming it gives "definiteness to our ideas; and in its elementary stages it does not diverge from the actual facts of life so far as to prevent its giving a fairly trustworthy picture of the chief methods of action of the strongest and most persistent group of economic forces."[1] Only when it is "pushed to its more remote and intricate logical consequences" does it diverge widely from the conditions of real life and cease to be of use in practical problems. The chief cause of the divergence (and therefore we must infer the chief reason for the assumption) is the impossibility of receding along curves which represent accurately enough the conditions of advance. This is especially true in problems involving multiple positions of equilibrium, that is to say (as it was later put) in the case of increasing return.[2] The new twist lies in the assertion that in the elementary stages it represents real life accurately enough to give a trustworthy picture, in contrast to the conclusion in the "Pure Theory" that its main function is to raise problems. If the two statements mean the same thing, it is unfortunate that Marshall was not clearer.

The reasoning about *rigid* schedules was retained in the second edition, when the more general case of the static method was expounded, and no change in content or form occurred in the third. In the fourth edition, however, fairly radical changes in arrangement were made. The discussion of stationary state and statical method is transferred from chap. xi to chap. v of Book V, and this important chapter on normal demand and supply in reference to long and short periods is given substantially its final form. A greater awareness and more conscious handling of the time element than before characterise this and other chapters.[3] Thus "the element of time is a chief cause of those difficulties . . . which make it necessary for man with his limited powers to go step by step; breaking up a complex question, studying one bit at a time. . . ."[4] Narrowing the scope of the problem by the use of the pound *ceteris paribus* increases the exactness of the solution, but, it is boldly confessed, diminishes the correspondence with real

[1] *Principles*, first edition, p. 425.

[2] Marshall recognises explicitly that the reasoning applies to increasing and decreasing returns—which was implicit in the "Pure Theory." From the third to the fourth editions "increasing returns" was substituted for "multiple positions of equilibrium (cf. the change in the caption of Book V, chap. xi).

[3] Cf. the note at p. 496 on Nicholson's blindness to the real significance of the time analysis.

[4] Fourth edition, p. 438.

life. It is the best way to proceed, because a grasp of the narrow issue is essential to the treatment of broader issues in which it is contained. Gradually by this means "exact discussions can be made less abstract, realistic discussions can be made less inexact." [1]

The fiction of the stationary state is then introduced as the first step in studying the influence of the time element upon the relation between cost and value. It seems at first that its function might be merely to show by contrast that the problem of value in the real world is not simple; that only in such a state could the "plain rule . . . that cost of production governs value" be true. However, the function of the fiction is not exhausted with its depiction, for Marshall proceeds to state what happens when the stationary state is modified. His marginal synopsis, which should be twice meditated, states that "modifications of the fiction . . . bring us nearer to real life and help to break up a complex problem." [2] The method involved in the gradual "relaxation of the rigid bonds of a purely stationary state" would seem to have some commendable consequences. Yet the consequences are not identical with those of the employment of the bit-at-a-time method. In the discussion of the latter the breaking-up of the problem was said to cause a divergence from real life. There is no inconsistency if the breaking-up of the problem in the case of the stationary state hypothesis only approaches real life from the far-off starting point given by the original assumptions. In fact this would leave Marshall a ground for choosing his own method.

The need for interpretation does not stop here. If a stationary state is postulated and then gradually modified, we approach "the difficult problem of the interaction of countless economic causes." Violent assumptions are necessary in this approach, and Marshall inplicitly contrasts with it "what is, not quite accurately, called the statical method," and says—here again by implication—that this is the type of analysis he would favour. It consists of fixing upon some central point, which is supposed "for the time to be reduced to a stationary state; and we then study in relation to it the forces that affect the things by which it is surrounded, and any tendency there may be to equilibrium of these forces." [3] Marshall does not make clear whether this is a reiteration of the bit-at-a-time method or whether it is a separate part of the procedure. From the statement that a number of such partial studies may contribute a solution to problems too difficult for treatment *en bloc*, the correct interpretation would appear to be the former. But if that is so, the statement here

[1] Fourth edition, p. 439. [2] *Ibid.*, p. 441. [3] *Ibid.*, p. 441.

does not conform to the description of the method already given, because instead of allowing one force to vary, and impounding the rest, one is reduced to a stationary state and the rest are allowed to vary. The only escape from the inconsistency would be to interpret Marshall to mean that the action of the forces upon the things surrounding the fixed central point is the field for the operation of the bit-at-a-time method. One is forced ruefully to remember, with Marshall, that an economist's method is likely to be better than his description of it.

Above these difficulties of interpretation it stands out clearly that Marshall's method involves selecting and classifying the forces at work, and of the possible criteria of selection the best is "according to the periods to which they refer." The famous fishing-industry example illustrates the use of time as the basis of classification. Day-to-day oscillations in price (market prices) are the ones "governed by practically the same causes . . . as in the supposed stationary state." [1] Not only a theoretically perfect long time, but also the shortest practicable short period is equivalent to a stationary state. We must supply the reasons, which are simple: in the perfect long period all forces exhaust their effects and none need be abstracted from; in the very short period there are only insignificant indirect effects of longer time forces, and since presumably the weather varies even in the stationary state, the market prices there are determined *almost* exactly as in real life.[2] No problem of statical method versus stationary state seems to arise in these cases. In fact there appears to be no scope for the application of the statical method in so far as it involves deliberate restriction of the problem.

A large middle ground remains, however, and this Marshall would appear to have in mind when he states that "relatively short and long period problems go generally on similar lines." Both involve the use of "that paramount device, the partial or total isolation . . . of some set of relations," with the object of introducing order into the differences and similarities between many such sets. "But there is a broad distinction between the two cases. In the relatively short-period problem no great violence is needed for the assumption that the forces not especially under consideration may be taken for the time to be inactive." [3] On the contrary, "violence *is* required for keeping broad forces in the pound of Ceteris Paribus" for a long period. Because it is

[1] Fourth edition, pp. 441–442.

[2] The qualification is necessary because of the reference to future supplies in real life.

[3] Fourth edition, p. 451 note.

not safe to neglect the cumulative effects of forces over, say, a generation, even provisionally, "the uses of the statical method in problems relating to very long periods are dangerous; care and forethought and restraint are needed at every step." This is particularly true in the case of increasing returns, where "the most alluring applications of the method are to be found."

The danger Marshall would avoid is reasoning to conclusions not in consonance with real life. But is the warning given in the simplest form, and the one most in keeping with his time analysis? If the distinction between long and short periods turns upon the assumption of constant and variable forces, the warning reduces to this: take care to weigh all the forces whose effects are observable in the clock-time under consideration. As used by Marshall, the "operational" time division satisfied his demand for correspondence with real life because the selection of forces which gives the dividing line is in accordance with practical happenings. His statical method does not exhibit a contrary spirit, in spite of its failure temporarily to show conformity with real life, simply because in constructing the final edifice it is possible by some means to make allowance for small lapses from reality in the parts.

II.

The validity of the statical method is further discussed in a chapter labelled "Equilibrium with Reference to Increasing Return." [1] That its usefulness is restricted to the "elementary stages" of its employment is repeated; the corollary, that there is "no scope in economics for long chains of reasoning," is indicated. In general the "Statical theory of equilibrium is only an introduction"; in the case of increasing returns Marshall shows still less faith, for then it is "barely even an introduction." And the very pointed warning is issued, that because "its limitations are so constantly overlooked . . . there is a danger in throwing it into a definite form at all." [2]

The preceding was, in the fourth edition, discussed more fully in a note called "The Pure Theory of Stable and Unstable Equilibria," which became in subsequent editions, Appendix H, with the title "Limitations of the Use of Statical Assumptions in regard to Increasing Return." If there is any culmination in Marshall's discussion of the static method, it is in this much-cogitated part of his work. Apart from one or two minor changes, which are indicative of reflection upon the matter between 1898

[1] So called first in the fourth edition, chap. xi; which is chap. xii of later editions.

[2] Fourth edition, pp. 515–516.

and 1907 (the fourth and fifth editions), there is only one point in Appendix H not contained in the Note. That is important enough to bring out at once. In considering the peculiarities of the theory of equilibrium under increasing return, Marshall asserted, "The central point is that the term 'margin of production' has no significance for long periods . . . therefore . . . the term 'margin' should be avoided."[1] Commodities conforming to the law of increasing return do so only in the long period; in the short period all show decreasing return, and of course the term margin may be used in all such cases. When, in longer periods of time, the "tendency to increasing return is an effective force, there is no clearly defined marginal product," and the analysis must take a different turn. Marshall distinguishes three aspects of the difference: the unit must be larger than when use is made of the marginal product; the representative firm rather than a given individual must be considered; and the cost of a whole process of production rather than of a unit of commodity must be taken.[2]

All of the above substantive statements were introduced in the fifth edition, with no change at all in the discussion which followed. They pretend to be a statement of the difficulty to be considered, yet there is unfortunately no specific direction of attention to the issues raised, and there is no direct solution of them in Marshall. The analysis following the substantive statements can therefore only be appraised from the point of view of economic method in general.

Since the Appendix in its final form collects kindred discussions from notes and text, parts of it have already been under consideration. The necessity of re-drawing the demand and supply curves is given as the chief reason why the theory is out of touch with real life. Of course so far as demand is concerned this is equally true in all cases of returns. Marshall does not point this out, but he does indicate that on the supply side the difference between diminishing and increasing returns in this respect is only one of degree. Apparently the reason for singling out increasing returns is that by definition there are great economies with an increase in output, all or most of which may be retained if output

[1] Fifth and later editions, p. 805. Henceforth references to Appendix H will be given without edition, since the pagination there is identical for the last four editions.

If Marshall is to be held to this assertion, one wonders if his acceptance of a negatively inclined long-period non-historical curve would be a rejection of a "counsel of despair." (Cf. Mr. Robertson, ECONOMIC JOURNAL, 1930, p. 84.).

[2] Appendix H, p. 805. The first and third are probably not intended to be separate points.

subsequently shrinks.[1] It can only be because of this difference in degree that, beginning with the fifth edition, a radical change is made in the conclusion as summarised in the marginal synopsis, with no change at all in the text to which it refers, to the effect that no great violence is necessary in assuming a rigid demand curve, while violence is necessary in assuming a rigid increasing returns supply curve.

There is no real argument in Marshall to support his generalisation concerning the great difference between the assumption of rigidity in the several cases. There is, however, a semblance of an argument, which really confuses the issue, because it introduces a short-time element into the problem of increasing returns, which is by definition restricted to a long period.[2] The argument is intended to show the "especial importance" of re-drawing the increasing returns curve, and refers to the immobility of the factors of production whose "competition will for a time prevent a diminished demand from causing an increased price for the wares." This is obviously not a special reason for singling out the case of increasing returns; it applies to industries operating under any law of returns, provided fixed capital is used, and the re-drawing would be of the short-period curve. Marshall is not faithful to his own method, and in particular to the express view that in the short run all industries are operating under decreasing returns.

Marshall's analysis as presented above does not go far in fulfilling his promise to show the source of the insufficiency of static assumptions. He contents himself with attributing part of the unsatisfactoriness of the analysis to imperfections in the tools themselves and voicing the hope for the future in expressing normal demand and supply prices as functions not only of the amount, but also of the time "at which that amount became normal." From this hope he passes abruptly to an examination of the conception of normal supply price. The familiar difficulty of the relation of average to normal expenses is broached first; the

[1] The assumption that increasing returns in a normal supply curve are due to preponderating economies which result from an increase in output *per se* raises a difficulty here. May we assume that most of the economies are retained when output diminishes, and still keep a clear distinction between economies which are and those which are not directly attributable to the increase in output? Marshall ignored the question. Furthermore, is it true that a general distinction of degree may be made between increasing returns and constant returns if the latter is the result of two opposite tendencies? The degree of redrawing necessary under constant returns (and similarly in cases of "slightly" decreasing returns) might be considerable.

[2] Seventh edition, p. 805, "a tendency to increasing return does not exist generally for short periods." Cf. also pp. 455 456 and 501.

warning is issued that in computing normal expenses the value of appliances cannot be taken for granted,[1] but no hint is given of the procedure to be followed in arriving at true normal expenses if they may not be taken for granted. From these difficulties Marshall is led, not to a scrutiny of the static method, but to a "diagrammatic presentation of the relations of demand and supply which are possible in a stationary state, but only there." We should expect, according to this, the whole of the famous note[2] to assume a stationary state. Marshall confesses that the illustration which it constitutes "has no positive value; it merely guards against a possible error in abstract reasoning." Actually, however, the restriction is not observed, and the note is worth examining for light upon the static method which Marshall claimed as the superior of the method involving the assumption of a stationary state.

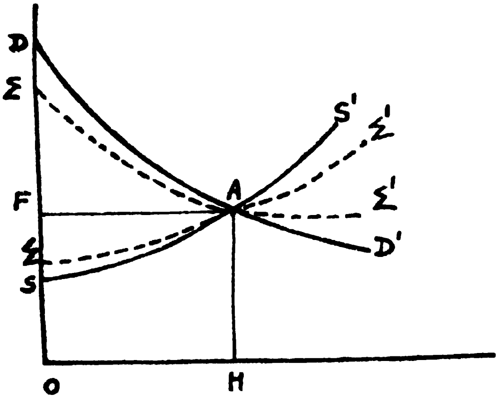
The only curve relative to supply conditions that Marshall ventures to draw is "not a true supply curve adapted to the conditions of the world in which we live; but it has properties, which are often erroneously attributed to such a curve." It is Marshall's particular expenses curve, and represents an array of unit costs in ascending order of magnitude when the factors of production are adapted[3] to a given total output. In the first instance he

[1] That is, not "without reasoning in a circle" (p. 810). Marshall is presumably discussing the "true normal" rather than the "sub-normal," but the argument is more forcibly applicable to the latter. The longer the period under consideration the more nearly accurate it is to take the value of the appliances of production for granted. Supplementary costs are those which *must* be covered in the long run if the price is to ensure a given flow of output—which is the definition of normal supply price.

Cf. Professor Ogilvie on Marshall's taking fright at reasoning in a circle. (ECONOMIC JOURNAL, 1930, p. 8.)

[2] Pp. 810–812, note 2 to § 4.

[3] To be inferred from the fact that AH is called an equilibrium price. The diagram is reproduced for convenience. The $\Sigma\Sigma'$ curves are normal supply curves which Marshall referred to, but did not draw.



expresses the difference between the particular expenses and the normal supply curve in terms of the assumption with respect to "general economies of production." The economies are taken as "fixed and uniform throughout" in the case of the particular expenses curve, as varying in the normal curve. They are "uniform" in the particular expenses curve because all producers have "access to the internal and external economies which belong to this scale of production"; and we may infer that it is *equal* access.

But Marshall forthwith shows that the difference between the curves may be otherwise expressed, for the particular expenses curve may only be used "to represent a particular phase of any industry . . . [and] cannot be taken to represent its general conditions of production." Here we have a suggestion of static conditions or stationary state. What follows, however, seems to indicate that real life, and not the fiction of the stationary state, is the subject-matter of this diagrammatic exposition. The "general conditions of production" may be represented by a normal supply curve, in which the assumptions are (*a*) that the successive points on the curve represent different adaptations of industry to the outputs whose magnitudes are indicated by the abscissae; (*b*) that the economies are not equally accessible to all firms and therefore the "available [*sic*] economies"—and we must add the relevant economies from the standpoint of adaptation—are those of a representative firm.[1] These two assumptions are in keeping with what was foreshadowed when the margin was declared inapplicable to increasing returns.

Then Marshall proceeds to compare the ordinates on the particular expenses and normal supply curves—still without drawing a normal curve. Ordinates for less than the equilibrium amount *O H* will be higher on the normal supply than on the particular expenses curve. This is clearly true for a negatively inclined normal supply curve representing increasing returns. The argument is extended, however, to cover decreasing returns, because "even in agriculture the general economies of production increase with an increase in the aggregate scale of production." Only by Marshall's assumption of rigidity in the normal supply curve (which is not explicitly made) would this be true for movements backward as well as forward along the curve.

The purpose of the comparison of the two kinds of curve appears to lie in the meaning of the area *F A S*, which represents

[1] The futility of the concept of a representative firm defined as one with its "fair share" of economies is evident here.

rent when $S\,S'$ is a particular expenses curve. According to Marshall, it would represent less than aggregate rent if $S\,S'$ were a normal supply curve. If this means merely that in the case of a positively inclined normal supply curve ($\Sigma\,\Sigma'$) $F\,A\,\Sigma$ would be an area on the diagram less than $F\,A\,S$, there is no harm and little usefulness in the statement, so long as it is not claimed that $F\,A\,\Sigma$ represents anything at all. If $S\,S'$ were a negatively inclined normal supply curve, the absurdity of claiming that it has any logical significance in the analysis would be more apparent.[1]

However, Marshall proceeds to the case when $F\,A\,S$ may be said to represent aggregate rent even when $S\,S'$ is a normal supply curve—namely, when the particular expenses curve and the latter are coincident. The only assumption Marshall finds it necessary to make is that there are no economies with increasing output; and naturally it cannot be made in the case of increasing returns, because it would be contradictory of the definition. Under decreasing returns the assumption is possible, according to Marshall, and it "may be occasionally convenient" to make it. I find it difficult to think of any such instance except to validate the statement that $F\,A\,S$ represents rent. The analysis shows, in fact, all the barrenness of the stationary state hypothesis. The particular expenses curve represents a phase of the supply conditions on the assumption that the industry is adapted to an equilibrium output—that is, abstracting from all the problems of adaptation. Therefore it is not an apparatus for dealing with the short-period problems whose essence is that of adaptation. As a tool this part of Marshall's analysis is impotent. Whether he intended it to be pertinent only to the stationary state or not, it can render no assistance to the instrument which the time analysis constitutes.

The truth of this becomes more apparent when Marshall finally extends the notion of a particular expenses curve to bring it into contact with the quasi-rent concept. He has made it perfectly clear that the latter pertains to the short-period analysis.[2]

[1] H. Cunynghame pointed this out long ago (*Geometrical Political Economy*, 1904, especially pp. 68 69, 121). His criticism touches the rent wrangle more deeply than it can be considered here, but Marshall's avoidance of controversy seems to have prevented him from noticing Cunynghame's criticism adequately. Nor did Edgeworth's review (*Papers*, Vol. III, pp. 136 *et seq.*) do Cunynghame full justice.

[2] Cf. Seventh edition, p. 362 note, where the related distinction between prime and supplementary costs is declared to have "no special significance" for long periods. For a detailed comment see the article "Die Quasirente in Marshalls Lehrgebäude" cited above.

If the time under consideration is limited and defined by the supposition that some man-made appliances of production are fixed, then a particular expenses curve may be drawn such that expenses are taken "in the narrower sense in which . . . quasi-rents are excluded." We must infer that only prime costs are represented in the curve. The area $F\ A\ S$ is then said to "represent the aggregate of rents proper and these quasi-rents."

If the particular expenses curve has not changed its nature, the use of it implies two main assumptions: that the industry is adapted to the output $O\ H$ at the equilibrium price $A\ H$; and that, given this assumption, the differentials which determine the shape of the particular expenses curve are fixed. The area $F\ A\ S$ by definition is the surplus of receipts over prime costs, and, remembering we are depicting a phase of an industry in a unit of time ($O\ H$ is the annual production), $F\ A\ S$ is the contribution of this particular "short period" to expenses other than prime costs. In strict Marshallian logic $F\ A\ S$ should be said to represent quasi-rents for that period. When Marshall makes $F\ A\ S$ represent quasi-rents and rent proper, difficulties appear: if we assume that rents relevant to a longer period are correctly represented by $F\ A\ S$ because there are no changes in the equilibrium price $A\ H$, then the state is too "stationary" for the quasi-rent analysis to play any part at all; and if we admit that $O\ H$ and $A\ H$ are not equilibrium quantities for longer periods, then in this period the area $F\ A\ S$ is wholly quasi-rent—unless the distinction between rent and quasi-rent is to be robbed of all significance.

If Marshall intended the whole of the note we have been considering to be an illustration of a stationary state where "every particular thing bears its proper share of supplementary costs,"[1] no room is left for quasi-rents, or for distinguishing short periods. In that case there is no logic in the paragraph where quasi-rent is introduced, and no hope in the concluding statement that "this method of treating short period normal value problems has attractions and may perhaps ultimately be of service: but it requires careful handling, for the assumptions on which it rests are very slippery."[2] If Marshall did not slip he was at least confused

[1] p. 810.

[2] The closing sentence of Appendix H is in a way a challenge to Marshall's successors. Professor Pigou appears to be the only one who has accepted the challenge, consciously or not. In the last section of Appendix III in his first two editions of the *Economics of Welfare* he treated of "Fluctuations of Demand" and his diagram included a "short-period supply curve, drawn on the assumption that the fixed plant of an industry has been adapted to a normal output $O\ M$."

in his assumptions and momentarily lost sight of his more consistent time-analysis. Not much can be expected if we start from this part of Marshall's analysis. The diagrammatic part of it cannot even perform a humble illustrative function. This may be a consequence of Marshall's vague and loose general statements about the time analysis and the static method, which often give the reader the impression that unexplored mysteries are behind them. This is a pity, because it may be, and has been, mistaken for pretentiousness. If the time analysis is seen plainly as a simple part of the bit-at-a-time method of procedure, of the abstract method universal in science, it will not thereby lose any of its importance. It will, however, show that Marshall's high expectations from the development of the time analysis are reconcilable with his other view that the great tool in economics is scientific common-sense.

REDVERS OPIE

Assuming there is no fear of spoiling the market, "the short-period supply curve represents the prime costs of successive units of production." Just as Marshall's short-time analysis in terms of a particular expenses curve was inserted in an appendix which set out to treat the long-period problem of increasing returns, Professor Pigou's short-period analysis is introduced into an appendix in which he declared "throughout the point of view taken will be that of a fairly long period" (*first edition, p. 931; omitted in the second). The interpretation of the* diagram presents difficulties, one of which is the meaning of the area between the prime costs (short-period) curve and the horizontal through its point of intersection with the long-period demand curve. It is an area corresponding to Marshall's FAS; and Professor Pigou says it "represents normal returns to supplementary costs, and is equal to the average of the producers surpluses (from a short-period point of view) that result from the various positions assumed by the demand schedule from time to time."

At least two assumptions are necessary to whatever meaning is possessed by the area in question: that infra-marginal prime costs are unaffected when output contracts; and that the average of all the contributions to supplementary costs determined by all the short-period demand curves "at any one moment" is equal to the area in question. The latter involves a relation between "average" and "normal" which Marshall never faced squarely outside the stationary state; and Professor Pigou's intrepid statements about averages in contrast to Marshall's almost morbid fear of the concept are one source of the difference between master and pupil. It would go too far afield to pursue the matter here. My excuse for touching upon it is that Professor Pigou omitted the analysis of Fluctuations in Demand from the Appendix of his third edition, in which he reintroduced diagrammatic support of his new analysis of supply, in spite of his decision to omit the old system of curves from the second edition because it was "found confusing by some students."

LABOUR MOBILITY IN THE SOUTH WALES AND MONMOUTHSHIRE COAL-MINING INDUSTRY, 1920–30

INQUIRIES into the post-war economic situation in Great Britain have invariably stressed the need for increasing the mobility of the labouring population. The fact that unemployment is so concentrated in certain specially affected regions makes it particularly important to discover to what extent there has been movement of labour from the most depressed to the comparatively vigorous sections within these areas. It is here proposed to present the results of an investigation into the mobility of miners[1] in the South Wales and Monmouthshire coalfield in the period 1920–30. The analysis is based on a special return covering all the Employment Exchanges where coal-miners predominate (46 in number), and embodying detailed information which was assembled during the Ministry of Labour's annual exchange of unemployment books in July 1930. This kind of inquiry is made possible by the fact that an unemployment insurance book retains the number representing the office where it was first issued, in spite of the possible migration of its bearer; for, annually in July, when the collection takes place, the mark of the office of origin is transferred from the old book to the new one. A book which is exchanged in an office other than that in which it was originally issued is called a "foreign" book. Thus, statistics giving the proportion of "foreign" to total books exchanged at each office in a given region, together with the areas where these "foreign" books began their career, can be of useful service in indicating the volume and direction of labour movement within and into that region. Thanks to the kindness of the officials of the Employment and Insurance Departments of the Ministry of Labour in London and Cardiff, the necessary particulars concerning coal-miners' books were abstracted at 46 offices in South Wales and Monmouthshire while the annual collection was in progress in July 1930.[2] It will be instructive to compare the

[1] In this study miners comprise persons classified by the Ministry of Labour as belonging to the coal-mining industry.

[2] I must acknowledge my special indebtedness to the Statistics Division of the Ministry of Labour, who readily placed expert knowledge at my disposal, and to the Divisional Controller for the Wales Division, under whose direction the return was prepared. The Department is, of course, in no way responsible for the use made of the material kindly supplied to me.

results with those secured in the only other investigation of this nature previously carried out, viz. the study of labour mobility in the cotton industry on the basis of the "foreign" books exchanged in 45 Lancashire offices in July 1927.[1]

The handling of unemployment insurance statistics requires not a little care and circumspection. It is essential, at the outset, to note the peculiarities of the data supplied in this return. For the purposes of this study the South Wales and Monmouthshire coal-field is divided into ten sections which may be taken as corresponding to ten valleys. The return indicates the origin of each "foreign" insurance book according to the valley where it was first issued; if it originated outside the ten coal-mining valleys, the town or Division is specified. It is, thus, possible to trace the movement of labour within the coal-field, here regarded as the ten coal-mining valleys, and also the number and origin of the immigrants from outside during the last ten years. The main qualifications which have to be borne in mind in interpreting the figures merit brief enumeration.

(1) The fact that an insurance book originally taken out at Office A is collected in 1930 at B does not necessarily imply that its holder has moved direct from A to B. Some time during 1920–30 he may have wandered to C, D and E before ultimately arriving at B; and it is impossible now to have any record of such intermediate movements.

(2) The date of the actual transfer may have been at any time between 1920 and 1930.

(3) In the mining valleys a certain number of men are always found working at some distance from their homes, and the practice has been made easier by the development of transport facilities, particularly by road. Much of the movement upward and downward in any valley is of comparatively little significance; and in this analysis it is important to concentrate on the proportions of non-local "foreign" books.

(4) In analysing inter-valley mobility it is necessary to keep in mind the geography of the locality. For example, where there is a tunnel connecting two valleys, a transference of books is to be expected. We can allow for the normal movement up and down a valley by eliminating the "foreign" books of a given office which originated in some other office in the same valley. If there are unusual facilities for travelling from one valley to another, due allowance must be made for the fact in interpreting the figures.

[1] J. Jewkes and H. Campion, "The Mobility of Labour in the Cotton Industry," ECONOMIC JOURNAL, 1928, pp. 135–7.

(5) Another element of complication might arise from the fact that, to quote Mr. John Hilton, " in some cases firms operating over extensive areas and employing work-people in those areas may keep all the books of the work-people at a head office for convenience of stamping, and may exchange them at the end of the insurance year at the Employment Exchange nearest that office."[1] This practice would tend to vitiate in some degree the local unemployment percentages in the areas concerned: it would also upset any attempt made to trace the movement of books between the Exchanges. Mr. Hilton, however, added that " this is neither a frequent nor a substantial element in the whole body of industrial procedure."[2] It is most apt to happen in the case of railway workers' books: there are no important examples of it in the South Wales coal industry.[3]

Tables I and V are an abridged version of the complete return embodying detailed figures for all the offices.

It must be remembered that the individual office administers too small an area for its percentage of "foreign" books to be taken without circumspection: where there are a string of offices, separated by only short distances, there may be constant and natural movement from one to another. Nevertheless, it is of interest to compare South Wales with Lancashire on this basis. In their inquiry into the cotton industry, Messrs. Jewkes and Campion discovered that " in the majority of exchanges the percentage of ' foreign ' cards to the total cards lodged was less than 5 per cent., and in some cases as low as 2 per cent. Taking 45 exchanges together, men and women, the figure was 2·8 per cent."[4]

Similar figures relating to the South Wales coal industry reveal much more fluidity. In the 46 Exchanges embraced by the return, the average percentage of " foreign " books to total collected was no less than 15·2 per cent. In order to eliminate the interchange that takes place between offices in the same valley, it is proposed to ignore the " foreign " books which have not circulated outside the valley where they were first issued. In this way we take into

[1] John Hilton, " Statistics of Unemployment derived from the working of the Unemployment Insurance Acts," *Statistical Journal*, 1923 (LXXXVI), p. 169.

[2] *Ibid.*

[3] One instance was found of about 3,000 books belonging to employees of the Ocean Coal Company, which were issued at the beginning of the scheme at Treorchy Exchange in the Rhondda valley, although the men were working in pits situated outside the valley. The effect of this is to deprive us of information concerning the possible migration of some of these books.

[4] J. Jewkes and H. Campion, *op. cit.*, p. 137.

account only those books which have migrated from one valley to another together with the few immigrant books, and express the number as a percentage of the total collected at each office. On this basis the average for the coal-field is 6·6 per cent. The average percentage of non-local "foreign" books in the coal-field is nearly two and a half times higher than the average percentage of all "foreign" books in the cotton industry. There can be little doubt that the coal-miners of South Wales and Monmouthshire have been much more mobile than the cotton workers of Lancashire during the post-war depression.

The next step is to examine the direction taken by these streams of movement. Table I exhibits the dispersion of books originally issued within each of the ten valleys. For example, column 1 shows the present location of books born in the Monmouth East valley; column 2 gives similar information for books which began their career in the Monmouth West valley, and so forth. This table taken together with Table V may be interpreted as follows. We may compute for each valley the aggregate of books collected and the number of non-local "foreign" books (*i.e.* "foreign" books other than those bearing the mark of origin of an office within the valley), and express the latter as a percentage of the former. The results, set out in Table II, demonstrate a decided range, from 3·8 per cent. in the Rhondda to 15·2 per cent. in the Neath valley. The lowest proportions of non-local "foreign" books are found in the four valleys situated in the heart of the coal-field—Merthyr Vale, Aberdare, Rhondda and Port Talbot—which cover districts producing steam coal largely for export. This was to be expected in view of the extremely rapid expansion which characterised this part of the basin before the war, and its great susceptibility to the changed situation in the international market. The two Monmouthshire valleys on the extreme east reveal only a slight improvement—6·4 and 5·5 per cent. Here again the incidence of the post-war contraction has been most severely felt, and only recently mitigated to some extent by the provision in the 1929 Hague Agreement,[1] whereby the Italian Government undertook on behalf of the Italian State Railways to purchase one million tons of British coal annually for three years as from November 15, 1929. The export of Monmouthshire coals has benefited most from this undertaking. The remaining four valleys show a distinct superiority—Rhymney 11·6 per cent., Swansea 9·9 per cent., Amman 9·2 per cent., and Neath 15·2 per

[1] See Protocol with Annexes approved at the Plenary Session of the Hague Conference, August 31, 1929. Cmd. 3392, p. 8, Appendix 2 to Annex II.

cent. The last three comprise the anthracite area on the west, which exhibits far more virility and promise than the remainder of the field. The Rhymney valley in Monmouthshire has witnessed new developments since the war,[1] and, being situated between two extremely depressed sections, it has drawn on the abundant supplies of surplus labour near at hand, mostly from the two valleys on the eastern side.

In Table III the data of Table I are set out in such a way as to reveal the net gain or loss of books in each valley. For instance, in the first column we note the number of books absorbed by Monmouth East from other valleys, whereas in the second column we are informed how many Monmouth East books have been dispersed to other valleys. These figures throw an interesting light on the direction of the currents of mobile labour. There has been a distinct net absorption of over 1,000 each in the anthracite valleys (Amman, Neath) and in Rhymney, with corresponding net losses in the four steam coal valleys (IV, V, VI, and VII). We may conclude that, to the extent indicated, labour has been moving out of the most depressed localities into the three sections which have been least affected by the force of the depression. This, of course, does not mean that all the holders of these transferred books have necessarily changed their domiciles; but it is clear that they have gone some distance to obtain work.

The authors of the investigation into the cotton industry came to the conclusion that "there appears to have been no movement of labour between areas in the Lancashire cotton industry which have been comparatively prosperous since 1920 and those which have been constantly depressed. The fine-spinning and weaving areas have not, to any appreciable extent, drawn labour from the coarse-spinning towns." Such internal mobility as they did find "appears not as a broad movement produced by a common economic stimulus, but as the inexplicable variety of individual action prompted by purely personal factors."[2] The present analysis, however, affords unmistakable evidence that, in the South Wales and Monmouthshire coal-field, some redistribution of labour has been taking place along well-defined channels.

Table IV represents an attempt to estimate variations in the number of men aged 18 and over in actual employment within each valley during 1923–30. The computation least

[1] The Tredegar Iron and Coal Company, the owners of the new Oakdale and Wylie collieries, have built two villages at *Blackwood*, and this has greatly facilitated migration into this valley. It is estimated that about 1,500 of the men holding "foreign" books at the Blackwood Exchange now reside in the area.

[2] J. Jewkes and H. Campion, *op. cit.*, p. 137.

open to criticism is obtained by subtracting the total of books lodged in June (*i.e.* the unemployment figure) from the aggregate number of books exchanged in July:[1] this provides an approximate estimate of the number in effective employment in June of each year. There has, of course, been a marked decline in employing capacity all round; but the rate of contraction has been by no means uniform. Merthyr Vale stands out as the district that has suffered the heaviest loss; the number working in its collieries in June 1930 was 71 per cent. less than in June 1923. On the other extreme, the least unfortunate is the Amman valley in the anthracite field, where the falling-off is 19·4 per cent. of the June 1923 level. A social problem of distressing magnitude stares us in the face when we contemplate the fate that has overcome these valleys, particularly those dependent on steam coal. The demand for mining labour in the Rhondda valley has shrunk by nearly 50 per cent. since 1923: this means that 31,000 men (excluding boys) have been displaced in a district where coal-extracting is the sole industry. The depression is effecting a distinct change in the relative economic significance of different parts of the basin. In June 1923 the two anthracite valleys (Amman and Neath), together with the Rhymney, contained 25·0 per cent. of the coal-field's total number of insured coal-miners in actual employment; but by June 1930 the proportion had risen to 33·4 per cent.

It remains to comment on the information contained in Table V, which classifies the "foreign" books which immigrated from outside the colliery districts according to the geographical areas where they were first issued. A mere glance at these figures is sufficient to emphasise the enormous change that has come over the coal-field since the war. In the half-century prior to 1913 this basin acted as a powerful magnet, attracting labour from all parts of the country, and the degree to which immigration was responsible for the growth of its population was considerable.[2] Since the war its absorptive capacity has become negligible: on the contrary, there has been a substantial net loss by migration.[3]

[1] The *Ministry of Labour Gazette*, February 1931, contains a series of figures of this kind for various industries.

[2] See the writer's article, "The Migration of Labour into the Glamorganshire Coal-field, 1861–1911," *Economica*, November 1930, pp. 293–4.

The net addition to the population of Glamorgan by migration during the decade 1901–11 was no less than 92,121.

[3] The estimated net balance of migration out of Glamorgan between mid 1921 and mid 1929 is 76,380. See "The Trend of Population on Tyneside," Tyneside Papers (Second Series), No. 1, published by the Tyneside Council of Social Service, February 1931.

The total number of books originating outside the actual coal-mining localities is only 2,504, or about one per cent. of the insured coal-mining population in July 1930. Of these no less than 1,205 are books which were issued from Kew to men discharged from the Forces. There was only a slight movement northwards from the ports of Cardiff, Newport and Barry; while the streams from the south-west of England, mid-Wales and Pembrokeshire which formerly flowed strongly into this coal-field have now almost dried up.

It is clear from the analysis that, although the demand for labour in the newer and more promising districts has been feeble compared with the enormous supply of surplus labour in the coal-field, a natural process of redistribution has been operating. This may serve to show that the labour force within the coal industry is not as immobile as some people tend to think; and it also provides a useful indicator as to the type of equilibrium which the coal-field can expect to maintain in the future.

The labour supply in the cotton industry is naturally immobile on account of "the high proportion of women workers and the close personal relation which still exists between employers and employees,"[1] and we are told that "this immobility has been accentuated by . . . the practice of organising short-time working in a way which has enabled the worker to draw his weekly income partly from the employer and partly from the Unemployment Insurance Fund."[1] The first two factors are obviously absent in the case of the coal industry, and, as far as the South Wales and Monmouthshire field is concerned, "there seems to be no evidence that the intermittent working has had any widespread connection with arrangements under which benefit could be secured."[2] The natural disinclination of the Welsh miner to leave his native district is not so pronounced when it is a matter of going to live in another part of the coal-field: the physical configuration of the area, however, has militated against easy movement from one valley to another,[3] except in those places where it has very recently been possible to build inter-valley roads.

[1] J. Jewkes and H. Campion, *op. cit.*, p. 137.

[2] Minutes of Evidence taken before the Royal Commission on Unemployment Insurance, Thursday, January 15, 1931, *Memorandum* submitted by Mr. W. R. L. Blakiston, Divisional Controller for the Wales Division, p. 205.

[3] See *ibid.*, p. 219, Mr. Blakiston's answer to Question 1664: "The genuinely seeking work clause was a very difficult clause to operate (in South Wales) because of the physical difficulties of actually seeking work in going fron one valley to another."

Leaving aside the scarcity of new outlets for employment within the industry, we may briefly cite some of the chief elements making for stickiness. Particularly relevant are the high proportion among the unemployed of married men with families,[1] the shortage of houses in the newer districts together with the burden of house-ownership in the most depressed, and the physical effects of prolonged unemployment (including the sinister fact that the unemployed inevitably tend to " accommodate themselves to a standard of living which makes it possible for people to subsist on the amount that is paid to them in benefit plus any assistance that they may get from other directions."[2] It is fair to conclude that the degree of redistribution revealed by the above analysis is a welcome sign that, in the South Wales and Monmouthshire coal-mining industry, in circumstances of peculiar difficulty, a process of natural readjustment, mainly in favour of the anthracite west, has been gradually taking place.

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[1] A special individual analysis of 40,000 unemployed miners aged 18–45 in the depressed areas, who had been idle for over three months, was carried out by the Ministry of Labour in October and November, 1929. Only 7,500 were found to be " both available and suitable for immediate transfer to industrial employment. Nearly 10,000 appeared to stand in need of a course at Transfer Instructional Centres, while some 4,000 were regarded as suitable for, and in need of, more specialised training. The remainder, nearly 20,000, were married men with families, many of whom could not be regarded as available for transfer because of their domestic responsibilities. The analysis took no account of unemployed men over 45, who constitute a still more difficult problem." *Annual Report of Ministry of Labour for 1929* (Cmd. 3579), p. 17.

[2] Royal Commission on Unemployment Insurance, Minutes of Evidence, *op. cit.*, Mr. Blakiston's *Memorandum of Evidence*, p. 204.

South Wales and Monmouthshire Coal Industry, Exchange of Unemployment Insurance Books, July 1930.

Table I.

Origin and Dispersion of Coalfield "Foreign" Books.

Valley where Books were exchanged in July 1930.	Valley in which Books were originally issued.										
	I. Monmouth Eastern.	II. Monmouth Western.	III. Rhymney.	IV. Merthyr Vale.	V. Aberdare.	VI. Rhondda.	VII. Port Talbot.	VIII. Neath.	IX. Swansea.	X. Amman.	Total.
I. Monmouth E.	184	510	24	18	14	15	9	1	3	6	814
II. Monmouth W.	149	3,115	1,309	9	21	33	29	5	4	1	4,966
III. Rhymney[1] .	111	611	3,191	928	353	777	44	20	17	15	6,103
IV. Merthyr Vale	2	18	89	1,513	306	81	17	24	12	16	2,078
V. Aberdare .	11	50	107	194	578	210	21	67	5	18	1,291
VI. Rhondda .	18	135	242	104	110	3,700	972[2]	26	17	53	5,377
VII. Port Talbot .	9	39	41	34	29	413	2,056	48	20	22	2,716
VIII. Neath[1] .	5	37	26	380	322	276	341	2,196[3]	88	44	3,715
IX. Swansea .	1	19	26	51	36	71	125	167	606	160	1,262
X. Amman .	19	34	33	42	77	272	133	88	845	1,871	3,414
Total .	512	1,926	5,091	3,273	1,846	5,878	3,738	2,612	1,617	2,206	31,731

[1] The non-local "foreign" books exchanged at the Blackwood office in the Rhymney valley and the Resolven office in the Neath valley have been allocated in round figures to the surrounding valleys according to supplementary information received. This was made necessary as these two offices were not included in the detailed Return. The margin of error on this account can only be slight.

[2] The surprisingly large number of books absorbed by the very depressed Rhondda valley from the Port Talbot district is to be explained by the fact that there is easy access between the Avon valley (in the Port Talbot section) and the top of the Rhondda valley by means of a tunnel. Some of these 972 "foreign" books are held by workmen who travel the short distance from one valley to the other by train every day.

[3] There are only two offices in the Neath valley, viz. Neath and Resolven. It is impossible to obtain a genuine figure of local "foreign" books for Resolven because, since there was no Branch office at the place in 1920 and the books of Resolven workers had to be issued at Neath, the "foreign" books now found at the Resolven office include (*a*) those held by workmen who have come from other Exchanges, and (*b*) those belonging to Resolven workmen which were transferred from Neath when a new office was opened at Resolven. The total of 2,196 includes the "foreign" books exchanged at Resolven minus those which are known to have been originally issued outside the valley. Most of them, of course, belong to category (*b*) as defined above.

Table II.

Proportions of non-local "Foreign" Books (including Immigrant Books).

Valley.	Total Number of Books exchanged.	Number of "Foreign" Books exchanged.	Number of Non-local "Foreign" Books (*i.e.* excluding those originally issued in the Valley concerned).	Proportion of Non-local "Foreign" Books to the Total exchanged.
I. Monmouth E.	10,605	867	683	6·4
II. Monmouth W.	33,214	5,241	1,826	5·5
III. Rhymney .	30,528	6,735	3,541	11·6
IV. Merthyr Vale	13,280	2,214	701	5·3
V. Aberdare .	20,422	1,500	922	4·5
VI. Rhondda .	58,306	5,929	2,229	3·8
VII. Port Talbot	20,462	2,887	831	4·0
VIII. Neath. .	10,558	3,799[1]	1,603	15·2
IX. Swansea .	7,291	1,325	719	9·9
X. Amman .	20,346	3,738	1,867	9·2
Coal-field Total .	225,012	34,235	14,922	6·6

[1] As a result of the circumstance explained in note 3 to Table I this figure contains some books which are not strictly speaking "foreign"; but this does not affect the number of non-local "foreign" books.

TABLE III.

Net Gain and Loss of Books.

Valley.	Books absorbed from other Valleys.	Local Books exchanged in other Valleys.	Net Gain (+) or Loss (−).
I. Monmouth E. .	630	328	+ 302
II. Monmouth W. .	1,551	1,513	+ 38
III. Rhymney . .	2,909	1,897	+ 1,012
IV. Merthyr Vale . .	565	1,760	− 1,195
V. Aberdare . .	713	1,268	− 555
VI. Rhondda . .	1,677	2,178	− 501
VII. Port Talbot . .	655	1,682	− 1,027
VIII. Neath . . .	1,519	446	+ 1,073
IX. Swansea. . .	656	1,011	− 355
X. Amman . . .	1,543	335	+ 1,208

TABLE IV.[1]

Estimated Number of Insured Coal-Miners aged 18 and over in actual Employment in June of each year.

(Total Books exchanged in July of each year minus the June unemployment figure.)

Valley.	June 1923.	June 1924.	June 1925.	June 1927.	June[2] 1928.	June 1929.	June 1930.	Percentage Decrease 1923–30.
								%
I. Monmouth E. .	11,433	10,789	6,767	6,384	3,507	7,117	5,411	52·7
II. Monmouth W.[3] .	33,107	32,821	30,573	27,319	15,287	21,360	22,835	31·0
III. Rhymney . .	28,853	30,677	25,6[illegible]0	26,269	22,130	23,001	22,647	21·5
IV. Merthyr Vale .	15,544	13,783	8,263	6,006	7,130	8,599	4,473	71·2
V. Aberdare . .	23,316	22,360	16,363	15,704	15,396	14,036	13,273	43·1
VI. Rhondda . .	62,851	65,652	51,983	56,518	39,182	33,118	31,679	49·6
VII. Port Talbot . .	22,112	22,505	15,989	15,019	11,638	13,684	12,581	44·0
VIII. Neath . .	10,363	8,957	6,930	8,450	6,463	7,636	7,847	24·3
IX. Swansea . .	8,133	7,367	8,772	5,373	1,855	5,790	4,528	44·3
X. Amman . .	20,927	19,167	17,178	11,968	11,371	15,662	16,862	19·4
Coal-field Total .	236,639	234,078	188,288	163,520	115,959	139,933	141,939	40·0

[1] The data on which this Table is based were kindly supplied by the Statistics Division of the Ministry of Labour. With one exception the offices covered are those which were included in the July 1930 return.

[2] After January 1928 persons aged 65 and over ceased to be insured, and this introduces a small breach of comparability over time. This Table is, however, primarily intended to show the employing capacity of the ten valleys relatively to one another. In any case it is worth noting that, in view of the established fact that the proportion of unemployed among persons aged 65 and over is greater than among younger people, the break in comparability over time in an Employment Table, such as the present one, is less than it would be in a Table giving the numbers insured during the period.

[3] Excluding Brynmawr office, which is in Brecknockshire.

TABLE V.

Origin of "Foreign" Books which were first issued outside the Coal-field.

Area in which the Books were originally issued.

Valley in which the Books were exchanged in July 1930.	Pembrokeshire.	North Wales.	Mid-Wales.	Cardiff, Newport, Barry.	Brecon and Chepstow.	North-Western Division.	South-Western Division.	South-Eastern Division.	Midland Division.	North-Eastern Division.	Scotland.	Kew, H.M.F.	Total.
I. Monmouth E.	Nil	Nil	Nil	4	6	13	10	3	7	2	Nil	8	53
II. Monmouth W.	1	Nil	4	81	16	10	27	9	14	15	Nil	98	275
III. Rhymney [1] .	5	6	4	80	8	11	41	15	29	14	Nil	419	632
IV. Merthyr Vale	4	6	6	18	2	4	7	7	5	Nil	Nil	77	136
V. Aberdare .	11	6	5	21	2	6	12	12	6	7	1	120	209
VI. Rhondda .	16	13	16	48	5	16	62	48	19	11	7	291	552
VII. Port Talbot .	5	8	3	17	5	9	19	12	9	7	4	78	176
VIII. Neath [2] .	5	5	3	5	6	3	8	4	5	2	2	36	84
IX. Swansea .	4	1	5	3	8	4	8	4	7	1	1	17	63
X. Amman .	92	9	93	12	Nil	11	13	11	9	6	7	61	324
Total . .	143	54	139	289	58	87	207	125	110	65	22	1,205	2,504

[1] Excluding Blackwood office.
[2] Excluding Resolven office.

A STUDY OF OCCUPATIONAL MOBILITY

I. Method of Investigation

THE extent to which movements among social classes take place, and the problem of how far " equality of opportunity " can be said to exist in modern society, are matters very frequently discussed and generally recognised to be of the greatest importance. Yet there are few data from which a reasonable quantitative opinion may be formed. Notable cases of " social climbing " are not hard to find—perhaps indeed it is their very rarity that makes them conspicuous—but they afford no index of movement among the population as a whole. We are anxious to discover how far there is circulation between, say, skilled and unskilled labour, and between clerks and manual workers, and it is clear that only a fairly detailed study of a vertical section of people can provide the information required. Two important studies of this sort already exist. Professor Morris Ginsberg, in an article on " Interchange among Social Classes " in the ECONOMIC JOURNAL of December 1929, analysed the household cards collected in 1924 by Professor Bowley in his well-known survey of five towns. From this material Professor Ginsberg discovered the extent to which sons moved out of the social class occupied by their fathers. Professor Chapman and Mr. Abbott, in a paper on " The Tendency of Children to enter their Fathers' Trades," in the *Journal of the Royal Statistical Society* of May 1913, made a similar inquiry among the scholars at evening continuation schools in a number of Lancashire industrial centres. The results of these two inquiries are in certain respects divergent.[1]

The paper which follows has its origin in the Social Survey of Merseyside which is now being conducted by the University of Liverpool. It is based on material collected by the Survey in the course of a sample household census in the Merseyside area. It will be noticed that whereas the papers mentioned above were concerned with moderate-sized manufacturing towns, this paper deals for the first time with a great city—a city, more-

[1] Sorokin in *Social Mobility* (pp. 416–17) gives a list and an account of statistical investigations of mobility of occupation in several countries.

over, the bulk of whose population is occupied in the provision of services, and especially of transport services, rather than in direct production. The important differences in social mobility between this area and those previously investigated will be discussed as they arise.

For the purpose of the Merseyside Social Survey one in every thirty working-class families in Liverpool, Bootle, Birkenhead, Wallasey and the surrounding urban area was visited during 1929 or 1930, and, among other things, particulars of the occupation of each member of the family were ascertained. The term "working class" as here used is not free from ambiguity. It is commonly taken to mean manual workers and their families, but, as will be presently seen, our sample really includes many families who do not answer to this definition. Whether a family belonged to the class to be included or not was governed by the occupation of the head of the household. All manual workers, shop assistants whose work was not managerial or supervisory and shopkeepers employing no labour were included. Marginal cases were left to the discretion of the investigator, but in general an income of £5 a week was taken as broadly defining the upper limit in cases where class was not obviously established by occupation. By this ruling a comparatively small number of clerks and commercial travellers were included, but such occupations were not generally represented among the heads of families in the sample. The sample, on these principles, can be taken as representative of about 70 per cent. of the total population of Merseyside. For this paper all those household cards were taken out on which both a father and son were represented and their occupations described. These occupations were then analysed into ten Occupational Grades as follows:

1. Highest Professional, Administrative and Business posts.
2. School Teachers.
3. Lower Professional, Commercial, Technical and Managerial posts (*e.g.* Commercial Travellers, Master Mariners, Customs Officers).
4. Ordinary Clerks.
5. Shop Assistants and Minor Commercial posts (*e.g.* Insurance Agents, small shopkeepers).

6*a*. Manual Workers in supervisory positions (*e.g.* Foremen, Police Sergeants).

6. Skilled Manual Workers (*e.g.* Plumbers, Fitters, Boilermakers).

7. Semi-skilled Manual Workers (*e.g.* Carters, Domestic Servants, Firemen, Motor-drivers).
8. Unskilled Manual Workers (*e.g.* General Labourers, Dockers, Seamen).
9. Those mentally or physically unfit to work and those who appear to have been unemployed for some years and are now without a recorded occupation. (Children of 14 or 15 who have not found work since leaving school are not included in this class.)

The classification is based partly on the nature of the work, partly on the pay, and partly on the social status—on the sort of people with whom the worker is likely to mix. Difficult cases are sometimes placed according to the social standing of the street or district where the worker lives.

The sons were then divided according to (*a*) whether they were adults (22 or over) [1] or juveniles (under 22), (*b*) the "degree of employment" of their fathers (full-time, part-time, unemployed or retired), (*c*) their occupational grade, and (*d*) the occupational grade of their fathers. It must be remembered that the sons in the sample are all living with their fathers and are likely, therefore, to be on the whole fairly young.

Besides the study of mobility between Occupational Grades, particular industries of local importance have been selected, and mobility in them is discussed separately.

Since the household inquiry was restricted to working-class houses (*i.e.* houses where the head of the family at least is a member of the working classes), practically all persons in Grades 1 and 2, and most in Grade 3, would be excluded. This obviously gives a certain bias to the investigation. Again, the fact mentioned above, that the sons in the sample are all comparatively young may mean that they have not all reached their final grade. The possibilities of error owing to these two factors should be borne in mind. Discussion of how far they affect the results will be found in the course of the paper. The total number of sons whose fathers' occupation could be discovered was 2,239, of whom 1,475 were juveniles and 764 adults.

II. Movement out of, and into, each Grade

The first striking result of the investigation (Table A) is that the proportion of sons who belong to a lower occupational

[1] Twenty-two was taken as the age of reaching adult manhood, as it was found that it is not until 22 that a wage-earner normally obtains the adult wage-rate.

grade than their fathers, the proportion, that is, who may be said to have moved down the social scale, is quite definitely larger than the proportion of those who have moved up. Those who remain in the same grade as their fathers compose, however, the largest of the three groups.

It would be misleading to suggest that these figures indicate a net decline in Occupational Grade between the two generations. Not only the number of movements, but also the distance covered, the actual length of the " jumps " in grade must be considered. This is done in Table B. It will be seen that if each movement is weighted according to the distance, in grades travelled, the movement up and the movement down almost exactly balance; for those going up appear to travel slightly further than those going down. (Even this method of measurement is not entirely satisfactory, because it assumes equality in the steps between any one grade and the next.)

TABLE A

Grade of Son Relative to Grade of Father.

	Percentage of Sons who have moved			Total Number of Sons.
	Up.	Down.	Neither Up nor Down.	
All Sons . . .	28·3	34·8	37·0	2,239
Juvenile Sons . .	28·9	34·6	36·5	1,475
Adult Sons . .	27·0	35·2	37·8	764

TABLE B

Mobility According to Extent of Movement.

Direction of Movement.	No. of Grades moved	1	2	3	4	5	6	7	Total.
UP . .	No. of Sons moving	261	179	46	103	39	3	1	632
DOWN . .	No. of Sons moving	387	269	57	41	20	4	1	779

Average move upwards 2·2 grades.
Average move downwards 1·8 grades.

From Table B we see, also, that the great majority of sons who have moved up or down from their fathers' grades have only moved a short way. Practically 70 per cent. of those going up, and nearly 85 per cent. of those going down, have moved one or two grades only. The most conspicuous ascent in the sample is a jump of seven grades by a man of 20, the son of an unskilled

labourer, who is recorded as studying for Holy Orders. The high proportion of sons who move four grades up is significant. It is accounted for mainly by semi-skilled and unskilled labourers' sons who become clerks or shop assistants.

There are necessarily two aspects from which the mobility of people in a certain social class or grade must be considered. First, we need to discover what proportion of those born in a certain grade move out into other grades. Secondly, we should find out what proportion of the people in a certain grade were originally born into other grades. It is obviously misleading to consider mobility from one of these aspects alone.[1] We will, therefore, discuss separately each of our Occupational Grades, being careful to bear in mind both points of view. The figures mentioned will be found in Tables C and D. In Table C, each horizontal line shows what has happened to all the sons of men in a particular grade. It gives the proportion of the total sons entering each grade. In Table D, all the sons at present occupying a particular grade are distributed along each horizontal line according to the grades of their fathers.

TABLE C

Table showing, for each Occupational Grade of Fathers, the Occupational Distribution of their Sons.

Occupational Grade of Father.	Percentage of Sons now in Occupational Grade.										No. of Sons Sampled.
	1 & 2.	3.	4.	5.	6a.	6.	7.	8.	9.	Total.	
1 & 2	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0
3	0·0	8·3	16·7	16·7	0·0	25·0	23·0	8·3	2·0	100	48
4	0·0	0·0	52·3	4·8	0·0	14·3	14·3	14·3	0·0	100	21
5	1·2	1·2	11·6	21·0	0·0	16·3	15·1	26·8	7·0	100	86
6a	0·0	1·6	13·1	4·9	1·6	18·0	16·4	39·4	4·9	100	61
6	0·2	0·3	9·6	7·2	0·0	30·6	13·7	35·5	2·8	100	613
7	0·0	0·6	8·2	7·4	0·0	16·0	18·4	46·0	3·6	100	527
8	0·1	0·1	4·1	6·8	0·0	12·6	13·1	58·0	27·3	100	872
9	0·0	0·0	18·2	0·0	0·0	27·3	18·2	27·3	9·1	100	11
Total	0·1	0·5	7·9	7·7	0·04	18·9	15·1	45·9	3·9	100	
No. of Sons Sampled	3	12	177	172	1	424	337	1,025	88		2,239

[1] For example, Professor Chapman and Mr. Marquis in an article on "Recruiting of the Employing Classes from the Ranks of Wage-earners in the Cotton Industry" (*J.R.S.S.*, February 1912), discovered by a sample inquiry that 76 per cent. of weaving employers, 73 per cent. of spinning-mill directors and 84 per cent. of spinning-mill managers were originally wage-earners. These figures are certainly striking, but no indication of the real breadth of the ladder from wage-earner to *entrepreneur* can be gained without some knowledge of the proportion of the total wage-earners which those who rise to managerial positions make up.

TABLE D

Table showing, for each Occupational Grade of Son, the Distribution of Sons according to the Occupational Grade of their Fathers.

Occupational Grade of Son.	Percentage of Sons with Fathers in Grade. 1 & 2.	3.	4.	5.	6a.	6.	7.	8.	9.	Total.	No. of Sons Sampled.
1 & 2 .	0·0	0·0	0·0	33·3	0·0	33·3	0·0	33·3	0·0	100	3
3 .	0·0	33·3	0·0	8·4	8·4	16·6	25·0	8·4	0·0	100	12
4 .	0·0	4·5	6·2	5·7	4·5	33·4	24·3	20·4	1·1	100	177
5 .	0·0	4·7	0·6	10·4	1·7	25·6	22·7	34·3	0·0	100	172
6a .	0·0	0·0	0·0	0·0	100·0	0·0	0·0	0·0	0·0	100	1
6 .	0·0	2·8	0·7	3·3	2·6	44·4	19·8	25·7	0·7	100	424
7 .	0·0	3·3	0·9	3·9	3·0	25·0	28·8	34·7	0·6	100	337
8 .	0·0	0·4	0·3	2·2	2·3	21·3	23·6	49·5	0·3	100	1,025
9 .	0·0	1·1	0·0	6·8	3·4	19·4	21·6	46·6	1·1	100	88
Total .	0·0	2·1	0·9	3·8	2·7	27·5	23·5	39·0	0·5	100	
No. of Sons Sampled	0	48	21	86	61	613	527	872	11		2,239

It is surprising to find that 90 per cent. of the sons of fathers in Grade 3 have found their way into an inferior grade. But, owing to the nature of the sample, the relative proportions of sons ascending and descending from Grade 3 cannot be regarded as significant. It is, however, worth observing that half those who descend from Grade 3 are to be found in the skilled and semi-skilled manual grades; only one-third are found in Grades 4 and 5, which represent on the whole the inferior branches of Grade 3 occupations.

Grade 4, that of "Ordinary Clerks," is remarkable in two ways. First, the total number in the grade has increased enormously. Under 1 per cent. of all sons sampled have fathers who were clerks; but nearly 8 per cent. of the sons are themselves clerks. The numbers in this grade have increased more than those in any other. Secondly, the number of clerks whose sons follow the same occupation is especially high: 52 per cent. of the sons of clerks are themselves clerks. The rest nearly all become manual labourers. This high proportion has been swamped by the great influx into the Clerical grade in the second generation, for only 6 per cent. of present clerks are sons of clerks. Where do the rest of the grade come from? The largest proportions (33·4 per cent. and 24·3 per cent.) come, it will be seen, from the grades of skilled and semi-skilled manual labour, and it was found that three-quarters of those who move from

Grades 6 or 7 to 4 are juveniles.[1] The same trend is distinct among adult sons, though rather less marked. Over 20 per cent. are sons of unskilled workers, though in this case the proportion of adult workers is higher (42 per cent.). It looks as though the stream into the Clerical grade from unskilled labour is smaller, but has been flowing longer, than that from the skilled and semi-skilled workers. The numbers coming to Grade 4 from the immediately adjacent non-manual grades, 3 and 5, are not merely small but represent comparatively small proportions of the total numbers moving out of Grades 3 and 5.

Grade 5, comprising Shop Assistants and those in Minor Commercial posts, including proprietors of small shops, has also increased greatly in numbers over the period covered by the two generations. The proportion of persons in this group has been almost exactly doubled, rising from 3·8 per cent. to 7·7 per cent. of the total. Twenty-one per cent. of those born into Grade 5 remain in that class, but the largest group (26·8 per cent.) consists of those who sink into the grade of unskilled labour. The influx into Grade 5, like that into Grade 4, is composed almost entirely of the sons of manual labourers. As in Grade 4, the movement from manual to non-manual labour is much more conspicuous among adult than among juvenile sons. It is worth noting that this stream flows both ways; in both directions it is wider between 8 and 5 than between 6 or 7 and 5, and the number moving up the stream is between two and three times as great as that moving down. When considering Grades 4 and 5 it must, however, be remembered that the sample is a working-class sample, and that therefore this movement from manual labour into the grades on the edge of the working class is probably somewhat exaggerated.

Of the 61 sons of men in 6*a*—Foremen, etc.—only one son is himself in 6*a*. This man represents, indeed, the only member of Grade 6*a* in the sample of sons. The reason presumably is that the ages of the sample of sons are necessarily somewhat below the average of foremen and men in supervisory positions. The sons of 6*a* men fall into much the same grades as the sons of skilled workers. The large proportion who become unskilled labourers is remarkable; a number of foremen, however, are probably taken from the ranks of unskilled workers.

Grade 6 (Skilled Workers) shows a remarkable decline between

[1] The movements of sons from their fathers' grades were separately analysed for adult and juvenile sons, though the detailed tables have not been included in the paper. The results are summarised in Table A.

the two generations. From 27·5 per cent. of the fathers it sinks to 18·9 per cent. of the sons. The largest group of the sons of skilled workers is found in Grade 8 (35·5 per cent.); 30·6 per cent. remain in their father's grade; another 16·8 per cent. become clerks or shop assistants in Grades 4 or 5. The last group seems only a small proportion of those who move out of Grade 6, but, as we have seen, they represent a large proportion of the total influx into 4 and 5. Although on balance Grade 6 is considerably depleted, there is a certain inflow, made up mainly by the sons of men in Grades 7 and 8.

The number in Grade 7 (Semi-skilled Labour) also shows a considerable decline between the two generations, sinking from 23·5 per cent. to 15 per cent. of the total. The number of those sons who remain in this class is low, and nearly half the sons sink into the unskilled labour group. Of the remaining third, who rise in grade, half become skilled labourers and the remainder non-manual workers. The influx into Grade 7 is derived mainly from the other two grades of manual labour, but especially from unskilled workers.

Grade 8 (Unskilled Workers) is like Grades 4 and 5 in that it has increased considerably over the two generations covered. The increase is accounted for partly by the very high proportion (58 per cent.) of sons of unskilled labourers who remain in Grade 8—the highest proportion of sons remaining in their fathers' class in the sample—and partly by an influx coming in equal proportions from Grades 6 and 7. To the extent of nearly 50 per cent., indeed, the unskilled group is made up of the sons of men in the higher manual grades who have fallen to a standard lower than that occupied by their fathers. Those who move out of Grade 8 are also found mainly in Grades 6 and 7, though over 11 per cent. rise to the non-manual workers' grades. It is evident that while the grade of unskilled labour is rather more stable than most grades, there is nevertheless a by no means negligible possibility of rising out of it.

Yet the figures given here, it is interesting to see, hardly bear out the results of the two other investigations we have mentioned. Professor Chapman and Mr. Abbott, in their inquiry among scholars in Lancashire continuation schools,[1] found that only 10·9 per cent. of the sons of unskilled workers remained in that grade. Chapman and Abbott's classification "unskilled" is, however, mainly composed of general labourers. Unskilled workers in the textile or metal industries would be recorded

[1] *J.R.S.S.*, May 1913.

under "textile" or "metal." In our sample, of course, they would all come into Grade 8. Moreover, their investigation was made in a number of Lancashire towns specialising in particular industries. In such places the proportion of unskilled workers would naturally be low compared with the proportion in an area like Merseyside, whose docking and transport interests require an enormous number of more or less unspecialised and unskilled workers. Also Chapman and Abbott's inquiry was made in 1912, and there can be little doubt that the proportion of unskilled workers in industry has appreciably increased over the last two or three decades. Clearly, the greater the proportion of workers in a particular class, the fewer persons may be expected to emerge from it. It is to be expected, therefore, that our figures should show more stability among unskilled workers than those of Chapman and Abbott.

A less striking but considerable divergence is found between our figures and those of Professor Ginsberg in his article on "Interchange among Social Classes." [1] From his figures obtained from Professor Bowley's survey of five towns in 1924 we find that 29·1 per cent. of the sons of unskilled workers are themselves unskilled workers, as against our 58 per cent., while 64·2 per cent. of his skilled workers' sons are themselves skilled as against 30·6 per cent. in our figures. Again the difference seems to be chiefly due to the difference between localities. In Bowley's five towns, according to Ginsberg's figures, over half of the working-class fathers and male children are "skilled workers," and only about 20 per cent. are unskilled. The proportions in our sample are almost reversed—almost 50 per cent. are unskilled and only about 20 per cent. skilled. The divergence seems to be due to the differing importance of the two groups of workers in the different industrial areas. The comparison brings out the important point that movements out of and into large groups are rarer than movements out of and into small groups. Where nearly half the working class are unskilled labourers, unskilled labourers' sons are far less likely to rise than in a town where only one-fifth belong to their grade.

Persons in Grade 9 are not always easy to recognise, since the information on the household inquiry cards does not always indicate for how long an unemployed man has been out of work. So it is possible that the figures for this grade are not complete. It is clear, in any case, that membership of this grade is not confined to the elderly, for the number of sons whose fathers

[1] ECONOMIC JOURNAL, December 1929, p. 565.

are in Grade 9 is only one-eighth of the number of sons who are in that grade themselves. The sons of men in Grade 9 are fairly well distributed over the manual grades and some are to be found among the clerks. There is no indication that a father who is unfit to work or unemployable is any very considerable obstacle to a son's career.

The sons found in Grade 9, nearly three-quarters of whom are juveniles, are recruited from all grades, though nearly half come from unskilled labourers' homes. It was found, though the figures do not appear in any of the printed tables, that a slightly larger proportion than the average of the sons in this group come from unemployed fathers, and that this is especially noticeable among juveniles. But for the most part it seems that the individual's own fault or infirmity is responsible for his position in this grade.

A comparison of mobility among juvenile and adult sons (Table A) shows that on the whole there is a remarkable degree of resemblance. This seems to indicate that no very extensive change has taken place in the extent of occupational mobility over the last twenty or thirty years.

TABLE E

Mobility of Sons in Relation to Degree of Employment of Father.

		Degree of Employment of Father.			
		Full-Time.	Part-Time.	Unemployed.	Retired.
Per cent. of Sons moving	Up	27·9	25·8	31·0	33·3
	Down	37·9	22·5	31·3	31·5
	Neither up nor down	34·3	51·7	37·8	35·2
		100	100	100	100

In Table E the positions and movements of sons are correlated with the "Degree of Employment" of their fathers. It is interesting that so large a proportion of the sons of part-time fathers (most of whom are casual and unskilled workers) should remain in their fathers' grades.

In Table F we can see separately the extent of movement between the manual and the non-manual classes in the sample. It will be noticed that the flow from the manual to the non-manual class represents a very large proportion of the non-

TABLE F

Mobility between Manual and Non-Manual Occupational Grades.

(Non-manual Grades : 1 to 5. Manual Grades : 6a to 9.)

	Grade of Son.								
	Juvenile Sons.			Adult Sons.			All Sons.		
	Non-Manual.	Manual.	Total.	Non-Manual.	Manual.	Total.	Non-Manual.	Manual.	Total.
Grade of Father :									
Non-Manual	42	46	88	20	47	67	62	93	155
Manual .	206	1,181	1,387	96	601	697	302	1,782	2,084
Total . .	248	1,227	1,475	116	648	764	364	1,875	2,239

manual class entered, but only a small proportion of the manual class left. The flow downwards is much less considerable: 15 in 100 sons of manual workers become non-manuals; 5 in 100 manual workers are the sons of non-manuals.

TABLE G

Destination of Sons of Non-Manual Workers going into Manual Classes.

	Manual *Adult* Sons with Non-Manual Fathers.		Manual *Juvenile* Sons with Non-Manual Fathers.		All Manual Sons with Non-Manual Fathers.	
	Number.	Percentage of all Adult Sons in Grade.	Number.	Percentage of all Juvenile Sons in Grade.	Number.	Percentage of all Sons in Grade.
In 6a .	0	0·0	0	0·0	0	0·0
6 .	11	8·0	18	6·3	29	6·8
7 .	18	10·7	9	5·4	27	8·0
8 .	13	4·1	17	2·4	30	2·9
9 .	5	20·9	2	3·1	7	8·0
Total .	47	7·3	46	3·8	93	5·0

In Table G an analysis is made of the actual grades into which non-manuals' sons who become manual workers tend to fall. The high proportion of juvenile sons going to Grade 6 shows that quite a large number of lower middle-class fathers are now apprenticing their sons to skilled manual trades.

III. Mobility in Certain Trades

Besides the figures relating to mobility among Occupational Grades, some information has also been collected about certain locally important trades and industries. The household survey cards on which the father is a member of one of the specified trades have been taken out and the occupation of the son or sons discovered.

TABLE H

<table>
<tr><th colspan="2">Occupation of Father.</th><th>Total No. of Sons.</th><th>No. of Sons in Father's Trade.</th><th colspan="2">Percentage of Sons in Father's Trade.</th></tr>
<tr><td colspan="2">Small Dealer</td><td>61</td><td>11</td><td colspan="2">18</td></tr>
<tr><td colspan="2">Independent Worker</td><td>85</td><td>17</td><td colspan="2">20</td></tr>
<tr><td rowspan="2">Engineering and Shipbuilding</td><td>Skilled</td><td>148</td><td>17</td><td>11½</td><td rowspan="2">13</td></tr>
<tr><td>Unskilled</td><td>48</td><td>9</td><td>19</td></tr>
<tr><td rowspan="2">Building</td><td>Skilled</td><td>89</td><td>18</td><td>20</td><td rowspan="2">17</td></tr>
<tr><td>Unskilled</td><td>32</td><td>2</td><td>12½</td></tr>
<tr><td colspan="2">Railwayman</td><td>101</td><td>8</td><td colspan="2">8</td></tr>
<tr><td colspan="2">Dock Labourer</td><td>257</td><td>51</td><td colspan="2">20</td></tr>
<tr><td colspan="2">Seaman</td><td>158</td><td>40</td><td colspan="2">25</td></tr>
<tr><td colspan="2">Total</td><td>979</td><td>173</td><td colspan="2">17½</td></tr>
</table>

The trades in question are:—1. Small Shopkeepers; 2. Independent workers; 3. Engineering and Shipbuilding, divided into skilled and unskilled workers; 4. Building, skilled and unskilled; 5. Railwaymen; 6. Dock Labourers; 7. Seamen. The sons of small shopkeepers and independent workers who are employed by their fathers are counted as small shopkeepers or independent workers. It will be seen that this classification in some cases cuts across the ten Occupational Grades with which we have so far dealt. There are, of course, a certain number of other trades of local importance which are either too indefinite for our purpose —such as general labourers—or which can be at any rate approximately identified with one of our other groups—such as clerks or shop assistants.

Table H summarises the results of this investigation. It will be seen that on the average 18 out of 100 sons of men in these industrial groups follow their fathers' trades. This figure is very much lower than the corresponding figure for Occupational Grades, for we found before that 37 out of 100 men remain in the same grade as their fathers. There is evidently a good deal of shifting among the different industries in the same Occupational Grade. The highest percentage of sons remaining in their father's trade

is found among Seamen (25 per cent.), while the lowest is found on the railways (8 per cent.).[1] A certain tendency, but not a very considerable one, was found to exist towards interchange between skilled and unskilled branches of the same trade. Four builders' labourers, for example, had sons who were craftsmen, while four craftsmen had labourer sons.

From the same data also we were able to find out which trades contribute mainly to the influx from manual to non-manual occupations which we have discussed above. We found that approximately one-quarter of the sons of building, engineering and shipbuilding craftsmen and of railwaymen make their way into non-manual occupations. On the other hand, an exceptionally small proportion of the sons of dock labourers emerge from manual labour.

These figures may again be compared with those obtained from the inquiry by Professor Chapman and Mr. Abbott.[2] They found that on the average about 36 per cent. of the sons follow their father's trade as against our figure of 18 per cent. For "Building and Working in Wood" they give 24·2 per cent. against our 17 per cent. for Building (Skilled and Unskilled). For "Metals" they give 33·3 per cent. against our 13 per cent. for Engineering and Shipbuilding. The discrepancy is extremely interesting because it tends to support the view[3] that comparatively small towns with local industries breed a certain industrial stability among all the population whether employed in the localised industry or not. Towns like Blackburn, Bolton, Burnley, Oldham, Rochdale and Stockport—where Chapman and Abbott obtained their information—are typical examples of specialising industrial centres. Except for Stockport—a hatting centre—these places are all textile towns, and the low degree of mobility in the textile industries is well known.[4] It is significant that other industries, such as Metals and Building, should also show such low mobility there. In Merseyside, on the other hand, a great area with a vast diversity of trades and industries, mobility among them is very considerable, and the extent to which sons follow their fathers' occupations relatively small.

[1] The percentage among dock labourers is worth noting, since preference in the issue of new tallies is given to dockers' sons. (F. G. Hanham, *Report on Casual Labour in Merseyside Area*, p. 22.)

[2] *J.R.S.S.*, May 1913.

[3] G. C. Allen, "Labour Transference and Unemployment," ECONOMIC JOURNAL, June 1930.

[4] See, for example, J. Jewkes, "Mobility of Labour in the Cotton Industry," ECONOMIC JOURNAL, March 1928.

On the other hand, it will be remembered that when discussing Occupational Grades we found that mobility among them was far less frequent in Merseyside than in Chapman and Abbott's Lancashire towns, or in Bowley's five towns. The conclusion suggested is that in the smaller, specialising towns, mobility among industries is rare, but there is a good deal of movement among the different grades of skill. On Merseyside there is far more mobility among the various trades, but less between the Occupational Grades within each industry or in industry as a whole.

Our general conclusion is, then, that mobility among Occupational Grades, while not appearing to increase much over the last generation, is on the whole considerable, but that movements upwards are generally balanced by movements downwards. The social ladder seems to lift more than one man in four to a grade higher than that into which he was born, while more than one man in three falls to a lower grade than his father's. At the same time, movements, both up and down, rarely cover more than a very few rungs of the ladder. Mobility between manual and non-manual occupations is frequent; the moves upwards, however, more than balance those downwards. Between the two generations there has been a considerable accretion of strength to the non-manual relatively to the manual grades. Mobility among industries seems to be even greater than that among Occupational Grades; only one man in six remains in the same trade as his father.

If these conclusions represent the position in the population as a whole, it can hardly be said that the Occupational Grades into which the people in our sample are classified are in any complete sense "non-competing groups." It is evident that for a boy entering work, choice of occupation is by no means restricted to the type of occupation—or much less to the particular trade—followed by his father. So far as the influx of fresh workers into industry is concerned, there is very definite competition between skilled, semi-skilled and unskilled work and between manual and non-manual occupations.

My thanks are due to Mr. D. Caradog Jones, Director of the Merseyside Social Survey, for his guidance and assistance in the preparation of this paper.

C. T. SAUNDERS

MR. KEYNES' TREATISE ON MONEY

A Treatise on Money. By J. M. KEYNES, Fellow of King's College, Cambridge. In two volumes. Vol. I. The Pure Theory of Money, pp. 363. Vol. II. The Applied Theory of Money, pp. 424. 15*s.* each.

AFTER an interval of several months from publication, a review of a long-anticipated and much-discussed book like this tends to be a review also of readers and receptions. The merit of the work itself in this case becomes for a time much involved with individual reactions to the challenging personality of the author, and all the different complexes which his public record has created. Frankly, so far, the book seems to have baffled the bankers, who, quite unused to inner economic analysis beyond a very static type, find in this new masterpiece of dynamic economics, headaches of the most formidable kind. And small wonder: for the chapters on definitions and fundamental equations are absolutely essential to anyone who would follow through the *proof* of the argument, and they are exceedingly concentrated reading. Indeed, they are not reading at all, in the ordinary sense, but concentrated study, such as the average business and professional man has not needed to employ since he left college and examinations. Some of these pages certainly demand a half-hour each of close application before the reader is entitled to proceed. But to anyone who is concerned, not with proofs but results and doctrine, it is by no means so essential to master these sections provided that their general drift is understood and for the time being accepted. But the average banker is not disposed to put his hand trustfully in that of Mr. Keynes, and be led forth through devious and unknown ways. He is, indeed, afraid of being " taken for a ride," in the Chicago sense. In fact he is nervous of being " had," and certainly even if he is ready to be a disciple, he is afraid of his colleagues, and of having himself to " explain why." It will probably be a good many years before the full implications of this work will be a part of the mental machinery of the head offices of central and deposit banks, and there are many good reasons why it is not of much use in some of them singly, for it needs *general* comprehension

and readiness of acceptance before its full practical values can really accrue.

The academic world is not always without its camps and its jealousies, and its reluctances to make admissions of a large and generous order. Nevertheless, private recognitions are now rapidly accruing, and no work of this remarkable force can, in an environment of reasonably disinterested intellectuality, and love of truth, fail to strike its mark fairly soon. Indeed, the more brilliant of the undergraduate world are, I find, quicker to realise its potentialities than the cautious and conservative professors. It is to them, going out into the active professional world, that we must look for the widespread infiltration of practical affairs by the central ideas of the book.

Professor Pigou has already described this treatise as "important and ambitious." Certainly, hardly anything in the Theory of Money can ever be quite the same again, and I doubt if anyone can now go over any of his past work in this field without wishing to modify some of his expressions and without wanting to touch up even the most finished of his products with the new tools he has obtained.

In many respects I regard Mr. Keynes' work as the most penetrating and epoch-making since Ricardo, and in saying that I do not under-estimate the immense value of the synthesising work of Mill, Marshall and Pigou, and the general new incisive analysis of Jevons and the Austrians. For, this method of attack may lead us into quite new fields, and the author himself has not explored them all by any means, though he has mapped out a programme and given some provisional rules.

I do not suggest for a moment that the work is perfect in form. In some places it is unnecessarily difficult—by which I mean it can be made easier on a second approach. Mr. Keynes had to "get it born" somehow, and he tells us the story of his labouring in the preface: "I could do it better and much shorter if I were to start over again." The marvel is that it is so satisfactory architecturally as we find it, and it would be most ungrateful to cavil at some of the effects of the mode and challenging, changing time of writing. We must all feel that recent events have completely bankrupted the old monetary analysis both as a means of explanation and also as a practical guide. It would have been a less service to delay it several years in order to give it greater perfection. But I agree with Professor Pigou that the author might now well write a short work embodying his chief conclusions for the general reader, and to the banker

and student of affairs such a book would form an introduction to the larger work. The author calls this " forcing his way through a confused jungle "—a collection of material rather than a finished work, but in this he does himself much less than justice.

In a complete treatise, Mr. Keynes necessarily had to deal with aspects ancillary to his main thesis, and there are, therefore, various chapters which do not contain the same note of originality as the others. But, even in these, his touch and treatment are fresh and distinctive—nowhere is he merely summarising and recording existing material, for he brightens, retests, criticises and adorns. So, combined with his broad treatment are a " number of discussions which might have been the subject of separate monographs." Book I opens with classifications of money and bank money, where appears a discussion of the controversy, partly verbal, as to how and by whom bank deposits are " created," and also a definition, destined later to be of much importance, of *savings deposits*, the criterion of which is that they are not required for current payments and can, without inconvenience, be dispensed with, if some other form of investment is seen to be preferable. Such savings deposits are here somewhat in excess of one-half of the whole. Book II deals with the Value of Money—purchasing power tested in different ways—the plurality of secondary price levels, the diffusion of price levels, and the theory of comparisons of purchasing power. At one point he says very justly, " I do not believe that Great Britain would have returned in 1925 to the gold standard at the pre-war parity if it had not been for the habit of regarding the wholesale standard as a satisfactory indication of general purchasing power." In his study of index-numbers I think he inclines to do less than justice to the Chain Method, for while it may not be the best to adopt when a full equipment is available, its practical value for " running repairs " when away from home and help is very great.

In Book III, " The Fundamental Equations," we reach the heart of Mr. Keynes' new theory and the most difficult and original passages of the two volumes. It is especially important that " profits " are particularly and closely defined in the residual sense of windfalls or differentials, all normal remunerations and interest and regular monopoly gains having gone into " income "; such profits are, of course, often negative. " If an entrepreneur spends part of his profits on current consumption, then this is equivalent to negative savings, and if he restricts his normal consumption because he is suffering windfall losses, this, on the

other hand, is equivalent to positive saving." If these special definitions are not kept in mind, in reading the later chapters, all is lost. Mr. Keynes then restates the Quantity Theory identities, but with the important aim of separating out those factors, through which, under a dynamic system, the causal process actually operates during a period of change, and arrives at his first statement, now so obvious, but so far-reaching:

> "I propose, therefore, to break away from the traditional method of setting out from the total quantity of money irrespective of the purposes on which it is employed, and to start instead—for reasons which will become clear as we proceed—with the flow of the community's earnings or money-income, and with its two-fold division (1) into the parts which have been *earned* by the production of consumption-goods and of investment-goods respectively, and (2) into the parts which are *expended* on consumption-goods and on savings respectively.
>
> "We shall find that, if the first of these divisions of the community's income is in the same proportion as the second, *i.e.* if the output measured in cost of production is divided between consumption-goods and investment-goods in the same proportion as expenditure is divided between current consumption and savings, then the price level of consumption-goods will be in equilibrium with their cost of production. But if the proportionate divisions are not the same in the two cases, then the price-level of consumption-goods will differ from their cost of production.
>
> "The price level of investment-goods, on the other hand, depends on a different set of considerations, which we shall come to later."

He finds that profits and losses are first an effect rather than a cause, but having come into existence are then the mainspring of change. It is vital to his argument that the actual price level of investment is the resultant of the sentiment of the public and the behaviour of the banking system. It used to be sufficient to say that savings—purchasing power put into the money machine—were really spending, on a different class of goods, *i.e.* productive goods. But the essence of Mr. Keynes' theory is that the decision to save instead of spending on consumption-goods is made by a different set of minds and on different principles (in the way it divides purchasing power) from the decision to spend on production-goods (*i.e.* to invest) by those waiting and working at the practical investment outlet of the money machine, and there is nothing immediately to compel investment to be equal to savings. The whole of the theory is bound up with the results of these disequilibria. "The performance of the act of saving is in itself no guarantee that the stock of capital goods will be correspondingly increased."

At first blush, and through a condensed description, it may be thought that we have here little more than an elaborate way of putting old theories of "over-saving" or "under-consumption."

But actually, although, as Mr. Keynes says, they have some affinity, they are based on quite a different point. Messrs. J. A. Hobson, and Foster and Catchings, have stressed an appropriate equilibrium between the devotion of human effort to consumption and production goods respectively—according to them there is an ideal, unspecified proportion between the two efforts, and when this proportion is departed from, trouble ensues. The kind of trouble they see at the bottom of our social disturbance is "too much saving," that is, too much put into instrumental goods, so that the consequent production finds too little consumption demand to meet it. Mr. Hobson at any rate traces the actual potentiality of over-saving in a maldistribution of income—too much income in the hands of a few whose consumption wants are few. But Mr. Keynes does not stress this ideal proportion. He would say, whatever proportion you *actually* have between the two, you must be consistent on both sides of the account. He does not say it should be 80 per cent. and 20 per cent. rather than 90 per cent. or 10 per cent., but whichever it is, it must apply to both the total production divided between the two classes, and total purchasing power divided between consumption spending and investment spending, and if the proportions differ—if the rate of investment lags behind the rate of savings—then trouble must result. He remarks, with complete justice, it seems to me: "They—Messrs. Hobson, etc.—are occupying an entirely different *terrain* from my theory, inasmuch as, on my theory, it is a large volume of saving which does *not* lead to a correspondingly large volume of investment (not one which *does*) which is the root of the trouble." But he acknowledges that they deserve recognition for trying to analyse the influence of saving and investment on the price level and credit cycle when the majority neglected this aspect—although they stopped short of the true link with the theory of money. Mr. Keynes finds that the writer coming nearest to the centre of his position is Mr. N. Johannsen (*A Neglected Point in Connection with Crises*, 1908, and pamphlets 1925, 1926 and 1928). "His doctrine of 'Impair Savings,' *i.e.* of savings withheld from consumption expenditure, but not embodied in capital expenditure, and so causing entrepreneurs who have produced goods for consumption to sell them at a loss, seems to me to come very near the truth." But this writer does not go to the point of temporary disequilibrium, adjustable by a changed rate of interest, as a chronic state of affairs in society—he does not envisage it as a banking machine defect of transmission.

Mr. Keynes finds that Tugan-Baranovski assumes that savings "accumulate" during depression to be used up in booms, and also has the maldistribution of wealth complex. He puts the credit for the pioneer work upon Mr. Dennis Robertson, where we shall all be glad to leave it, presuming that Mr. Robertson will give Mr. Keynes credit for hatching out the fertile egg laid so unobtrusively in "Banking Policy and the Price Level" which Mr. Robertson himself, after a well justified crow, left to its fate.

In the *modus operandi* of the bank rate, some important new distinctions are made—the discouragement of investment relatively to saving, in its effect on prices, being brought to the front as a causal element. "There has been no more harmful confusion within the field of monetary practice than the belief that bank rate has done its work when it has produced a fall in the price level, irrespective of whether this is due to selling at a loss or to a decline in the costs of production, *i.e.* irrespective of whether the deflation which it has produced is a Profit Deflation or an Income Deflation."

In Book IV we have the "Dynamics of the Price Level," in which the author does skilful manipulations of the creatures he has made, and savings and investment gyrate in what, on first reading, is a giddy maze, but which on a closer acquaintance is a brilliant and profound analysis—a perfect orgy of symbolic and difficult reasoning, which will defeat all but the most practised and persevering.

In the second volume on Applied Theory we are soon back into savings deposits and velocities, backed by a use of all available statistical material, which, to say the least, is courageous, though I am bound to say rarely foolhardy. By the analysis of deposits into two sections, it is shown that an apparent stability of monetary factors may really be covering up important changes in the relative velocity of the two parts, which have far-reaching consequences. Mr. Keynes gets results of great value by dividing price level conceptions hitherto taken in one, and produces a completely new picture. He does the same with deposits, and indeed with like fundamental importance. One wonders whether, lurking behind other single conceptions, there may not be other double and diverse influences. For example, Mr. Keynes tends to treat "savings" as subject to a single influence of rate. He does not take the separate component psychologies of savings, made familiar by Professor Gonner—those sections in which the response to a higher rate is to make it necessary to save *less*, instead of more—but probably on balance this is insignificant. More important, I suspect, is a further analysis of "Profits"

looked at as an aggregate—first an aggregate made up of slight tendencies all in one direction, and second an aggregate of a large mass of profits in certain sections rather outbalancing an aggregate of losses. I imagine that *dispersion* is just as important as aggregation, and that the behaviour of the Keynesian analysis could not be identical for two similar total effects made up of widely different types. Again, " business losses " are financed by excess saving—but such losses can be broken up into a diverse classification. Some businesses definitely finance a " loss position " by borrowing, others by letting stocks run down, others by not renewing, or delaying making revenue provision for renewal of, machinery (involving no borrowing). Is the effect of borrowing, disinvestment, and restriction identical? Nor is it always clear whether the business loss is brought about more easily by the fact that finance is available through over-saving, or under-investment, or whether it is the over-saving which causally compels the business loss, *viâ* price change. For not all losses requiring financing are due to price changes—some follow miscalculation and competition and individual trouble and backwardness. The dynamics are clear, but not always the *direction* of causation.

The relation between development projects and " unused capital " in times when savings exceed investment is obviously one of great importance, and different readers have apparently found support for different views from these pages. Strictly the lack of equivalence does not result in a potential fund in existence for any length of time. For the enhanced savings, according to some, may hold the *old* objective investments at higher values, a form of security inflation, and support is found for this in the absence of any statistical evidence of a fund awaiting investment. But, in Mr. Keynes' analysis, the purchasing power withheld from consumption-goods lowers the demand and the price, and produces business losses which, put crudely here, are " financed " by that very excess of purchasing power transferred to saving. At some subsequent date it may be possible to create an excess of *investment* over savings, and reverse the process, but this is mere equivalence, and not an absorption of the original error. Dynamically, *at the moment* when private investment is less than savings, the surplus of the latter might be prevented from financing losses by being absorbed in public investment which creates a demand for the right commodities and prevents a deflation of their price on the supply existing.

Another brilliant passage restores a true doctrine of the

Wages Fund—the successors to Mill have not " perceived the truth which lay at the centre of the confusion." Following upon a careful distinction between productive consumption and unproductive consumption, he concludes that " it is the flow of income available for consumption by the factors of production which constitutes the true Wages Fund, and it is the distribution of this fund between relatively productive and relatively unproductive consumption which determines the volume of employment and of output." Most of us have felt, in an unanalysed way, that the ordinary exposure of the " Wages Fund fallacy " left out of account limitations on the *rate* of expansibility of working capital through credit, but Mr. Keynes has made his unerring contribution to this analysis also.

Book VI deals with the Rate of Investment and its fluctuation. Disequilibrium more often arises from such fluctuations than from changes in the volume of savings :—" Whenever the rate of interest changes for reasons other than a change in the demand schedule for the use or enjoyment of fixed capital, it is reasonable to expect a change in the rate of investment." Distinctions between increases in working capital and liquid capital are here very important. The practice of testing net investment by the growth of fixed capital tends to mask the extent of the dependence of the community during a slump upon using up liquid and working capital. " It is precisely this shortage both of available output and of liquid capital which may retard the process of recovery even after the influences which originally caused the slump have long since ceased to operate." It is a common practice to-day to think that a diagnosis of how the slump came about is also the guide to the factors which are to be worked upon to secure recovery.

The chapter on Historical Illustrations contains some very pertinent new criticism of the depression of the eighteen-nineties, but its greatest value perhaps rests in its suggestive treatment of the United States position for the years from 1925 to 1930, while the analysis of the " Gibson paradox " dealing with the high correlation between the rate of gilt-edged interest and the level of prices is of great importance in economic theory.

In Book VII the Management of Money brings us down to the great banking problems of the day, and it is altogether beyond the scope of a review to describe the many contributions to analysis of recent events, and the many practical suggestions which Mr. Keynes makes in this field. For the first time, I think, he gets into reasonable focus the respective potentialities

of control by member banks and by central banks, as distinct from what he describes as "supernational control." This portion should be read easily, and its main purport understood, by all interested in current problems. They are extremely far-reaching, for the fundamental assumptions of the gold standard and the difference between its working now and before the war become abundantly clear. A great deal of the critical matter centres round some of our (at present) quite unwarrantable expectations: "Can we afford to allow a disproportionate degree of mobility to a single element in an economic system which we leave extremely rigid in several other respects? . . . To introduce a mobile element highly sensitive to outside influences as a connected part of a machine of which the other parts are much more rigid may invite breakages."

The author deals very acutely with what is sound and unsound respectively in the innumerable proposals of currency cranks with their "self-liquidating" inflations. It is a little surprising, however, that he did not find more room for treatment of "dual systems" of currency, designed to relieve us of most of our internal difficulties by a domestic unit, which would maintain our internal price level conditions at the same time as the present international unit with a varying link of exchange between them—such systems having been put forward by painstaking and thoughtful writers. The treatise winds up with a chapter on Supernational Management, and the Bank for International Settlements, which is suggestive and indicative rather than exhaustive. I do not know that the progenitors in Paris could have done more in the constitution of the Bank if they had had Mr. Keynes' book before them, but at any rate they would have been confirmed in their belief that they were attempting the initial regulation of an overmastering function in the preservation of international social life and civilisation.

Mr. Keynes must take rank in the greatest line of economic development. He has provided material for innumerable analyses of particular questions. Assuredly not all his individual applications will stand. He is young enough to alter and rewrite many of them himself, but as first approximations they are a magnificent contribution to realistic economic thought. In the realm of pure theory and analysis, I am convinced that our sense of indebtedness to him will continually grow. It was not only stout Cortez upon a peak in Darien who had a Pacific to stare at! And the days of path-breakers are clearly not yet ended.

J. C. STAMP

REVIEWS

Equality. By R. H. TAWNEY. (Allen and Unwin. 7*s*. 6*d*.)

MR. TAWNEY'S new book is, in part, political pamphlet and in part social inquiry. It is written throughout with the speed and verve of the best political pamphleteering; and in so far as it is social inquiry, it makes valuable contributions on several difficult problems in social theory. But the fusion of the two is not quite complete; the pamphlet element has so far predominated, that at certain points the other side of the case is neglected, where to state it would not detract from the argument but rather enrich it. For all that, it is, as might have been expected, a work of distinction and of considerable importance. In it, Mr. Tawney is exploring comparatively new ground in social theory. It is extraordinary how little conscious work has been done in this direction, recognising the factor of class and its significance, and investigating the impact of economic forces upon political society. The book joins a body of distinguished work which has only recently attained any prominence in this country.

Mr. Tawney explains his purpose in somewhat pragmatic terms at the beginning. He says, " It is worth while to inquire whether economic efficiency may not be clogged by the presence of conditions which make for social inertia, and whether the path to its attainment may not lie to a less degree than is commonly supposed in the region of machinery and organisation, and to a greater degree in the attempt to create a more humane and flexible social system " (pp. 18 and 19). And it is his thesis that since the community, to be effective, requires a common culture, and since a common culture rests upon economic foundations, " it is incompatible with the existence of too violent a contrast between the economic standards and educational opportunities of different classes. . . . It involves, in short, a large measure of economic equality—not necessarily, indeed, in respect of the pecuniary incomes of individuals, but of environment, of habits of life, of access to education and the means of civilisation, of security and independence, and of the social consideration which equality in these matters usually carries with it " (p. 41). Thus widely interpreted, it may be granted that he establishes this part of his

case, and that the extension of equality in these directions would add to, rather than detract from the smooth and efficient running of the social system.

He opens with a survey of what Matthew Arnold calls, in a brilliant and famous essay, the Religion of Inequality. But what is most interesting is to see, in the quotation from Arnold, inequality regarded as *against nature*: " A system founded on it is against nature, and, in the long run, breaks down " (p. 24). This does something to redress the balance of the discussion that rages on this subject; for we constantly are led to believe that only inequality has a natural foundation. There is as much reason for holding, as Arnold held, that the constant struggles of society towards equality, to find an equalitarian balance, are just as natural a tendency. One wishes that Mr. Tawney had explored further the suggestion contained in his first paragraph, for there is evidently much that is unexpected and illuminating to be found on these lines, and a vast deal of what is currently accepted for wisdom to be shown up.

However, he does lay bare, very neatly, the common confusion between inequality as a fact of nature and as a desirable social end (p. 50). And he has a very penetrating remark (p. 64), summing up the extraordinary paradox, to anyone for whom the existing social system has little enough authority, that at the same time as it perpetuates differences between one class and another, it exerts a powerful influence to eliminate differences between individuals and to produce a common type. In the end, Mr. Tawney is apt to find the main obstacle to the attainment of equality to consist in " habit of mind." But surely this is in turn dependent on a class-structure based on inequality, which is more fundamental and which it is more necessary, therefore, to change. He seems to regard institutions as the expression of this temper of inequality. This, apart from its having the wrong emphasis, is liable to be dangerous for his argument; since if, as he does not deny, it is in their mental characteristics that men are notably unequal, on this argument it may only be natural to expect that the " expression " of these in society will be the institutions of inequality.

The second chapter, and indeed the main body of the book, is concerned with the relation between inequality and social structure. In this part Mr. Tawney makes brilliant use of the material collected by Professors Carr-Saunders, Clay, Ginsberg and others. But one wishes all the same that he had considered, in the section on " Equality and culture," what is to be said on

the other side. The problem as he sees it is to end social inequalities without in any way hurting the divergences and variety which are a source of richness to society. And therefore it is necessary to know how far culture is dependent upon this social variousness, and hence upon economic inequality. The defenders of the present system imply, even where they dare not say, that it is so dependent. It may be that a certain desirable variety does come from this juxtaposition of different social classes and standards; the point is whether the advantage, if it exists—and the matter has to be argued out—is outweighed by its enormous disadvantages. Mr. Tawney is clearly of opinion that it is; and much of his book is devoted to expressing what these disadvantages are.

The most original, and in some ways the most satisfactory part of the book is the section on "Class" (pp. 65–98). Here, better than anywhere else in English, may be found a valiant and independent attempt to construct a concept of class. The attempt, in itself, succeeds almost entirely; it grasps, for instance, the essential point, that class is not determined by this or that specific characteristic of a group, but by a totality of conditions all of which must be present to constitute class-division. Nevertheless, it is a disadvantage of the moral approach that it is apt to confuse the proper recognition of class and class-struggle as facts of society, with the approval of existing class-arrangements and their consequences. From this confusion Mr. Tawney is not entirely free; and perhaps because he strongly disapproves of the latter, he ends by underrating the theoretical importance of the former. He deals with the subject with evident reluctance and leaves it with relief; though why the question of class should always receive the tribute of embarrassment, and as often as not of a pained surprise, is amusing to speculate on. But it is not the way to recognise a factor of fundamental importance to society, to regard it as "a sensitive nerve." Nor is it helpful to describe class-struggle as merely "a regrettable incident"; or, if it is, then it is an incident which has continued throughout history!

The same criticism may be made of his treatment of the question of power and its economic connotations at the end of the book. He says categorically: "It is not the case, therefore, as is sometimes suggested, that all forms of power are, in the last resort, economic, for men are so constituted as to desire other than temporal goods and to fear other than economic evils. . . . To destroy it, nothing more is required than to be indifferent to its threats, and to prefer other goods to those which it promises" (p. 230). Of course, men desire other than temporal goods; but

there is a point beyond which they cannot choose, or they cease to exist. In this lies the ultimate sovereignty of the economic. If they do choose not to exist, it is none the less a victory for the economic power exerted against them—even if it has no moral victory. And if they should be able to escape this choice, it is in so far as they have some economic power to rely on : the demand for their labour, or the strength of their associates enabling them to hold out. The moral is clear, and it would in no way detract from the cogency of Mr. Tawney's argument to admit it.

However, there is no doubt that he is ready to draw the moral in fact and apply it in practice (cf. p. 114); even if he is not yet prepared to accept all its implications in the realm of theory.

A. L. ROWSE

The Future of Farming. By C. S. ORWIN. (Oxford University Press. Pp. 156. 5*s*.)

THIS book is a plea for a bold departure in agricultural policy. Mr. Orwin wants to rationalise the industry, applying to it the modern methods of industrial efficiency—the large unit, and specialisation. He points out that recent enquiries into agriculture have proceeded on an implicit assumption, that certain traditional methods are unchangeable, and that reform means the best adjustment that can be made within the scope of these methods. The key of this assumption is the individual self-capitalised farm, of which we have about 300,000 in Britain. Yet the coal industry, having 1,500 producing units, was thought on that ground to need rationalisation. And the farming problem is further complicated because of an inadequate adjustment of estates, farms, and even fields to the growth of the nation since the end of the Enclosures in 1850. Similar units of farm and field have lasted through all the changes in industrial organisation. This is the position which Commissions, Committees and Tribunals have been content to accept, but from which Mr. Orwin now wishes to break away.

I think that he is right in this presentation of the question. Any economist who turns his attention to the agricultural problem finds that he is within a range of ideas that is restricted by comparison with other industries. He finds himself devising reasons for small holdings, and arguing in favour of everything which requires a large amount of labour to produce. He would not apply these views to the starting of small men in any other occupations. Even the reference to the Agricultural Tribunal involved the confusion between efficient food production and a

high labour cost in agriculture as a whole. It is a good thing to have this confusion challenged, and to have agricultural policy put to the usual tests which would be applied to any industry.

The three problems of policy have been credit, co-operation and the wage level. But both the former problems arise because the unit of production is not large enough to employ finance or marketing methods as a large business can employ them. Joint stock cuts out the problem of mortgage or mercantile credit, and creates units of enterprise which need not be at a disadvantage in selling. The wage level has to be adapted, as Mr. Orwin shows, to the value of work under restricted uses of mechanical capital, due to the fixity in size of the farm and the field. The narrow ambit of economic thinking on agriculture is, in fact, revealed by the clause of the Land Utilisation Bill which proposes, at this date, to advance public money in order, as the Memorandum states, to "make an experiment in large-scale farming."

Mr. Orwin's argument is not entirely free from the paradox of this position. The reason for the family farm, or the small capitalised farm, is an instinct to which he defers, and which indeed he applauds. Agriculture is a life. He goes further and says it is "the life which Nature intended that the human race should lead." And he writes a chapter, which I do not find more convincing than other chapters of the same kind, about the "balance of national life" between agriculture and industry. There are 7 per cent. of our people in agriculture (largely because of the small part played by women) against figures of 30 and 40 per cent. in France and Germany. These latter figures are largely due to political causes and tariffs, not to a theory of "balance" as he understands it. It would be quite reasonable to hold that, for modern European countries, they are far too great. Belgium, the nearest to us, is 20 per cent. What is the criterion? Mr. Orwin grants that defence and public health are no longer relevant to our problem. He argues that agricultural nations are more stable and conservative in their manner of life and thought, less given to revolution, and so forth. But I doubt if much evidence for this can be produced; and it comes back on Mr. Orwin, because he has not shown that his methods of rationalisation will not mean labour-saving, and therefore a smaller agricultural population. In manufacturing industry, labour-saving reduces costs, expands demand, and creates new factories and more employment; in agriculture, the limitation of the soil prevents that result, so that I doubt whether the beginning and end of this book will square with each other, and I agree heartily with the end.

In the second chapter, Mr. Orwin deals with certain differences between agriculture and manufacture which are fundamental; the influence of weather, the landlord-tenant relationship, the inelasticity of costs, the slow turnover, the friction of substitution, the burden of interest charges on loans. The display of fundamental differences might lead one to suppose that agriculture must have a different kind of rationalisation from manufacture; in that sense, again, the end of the book leads us to turn back to the beginning. But there is nothing in these differences which seems to me to obstruct the argument which is developed; on the whole, they support it.

To come to the central position. Mr. Orwin has returned to his earlier views on Small Holdings policy as understood in this country; and his discussion of that is a finely reasoned piece of work. He points out the absurdity of basing the small holding on acreage. For family farming of some kinds, 200 or 300 acres may be a small holding; in other cases, 50 acres may be a large holding. And if we look at the types of family farming in the Old World and the New—the peasant proprietor and the self-capitalised farmer—in both cases he holds that they represent "a standard of life as far removed from anything for which the organised labour movement is striving as could well be imagined." The peasant proprietor, indeed, is the "standing anachronism of modern civilisation." Yet it is the latter which has been the model of Small Holdings' legislation, though the former is that which represents the pioneer work of farmers of British race in other countries. Subject to a proper criterion as regards products, soil, and local conditions, Mr. Orwin is willing to keep a place for family farming, but is entirely against any general policy of establishing it everywhere. Not that it *ever* makes economies as against large-scale production; but under careful conditions it need not be very wasteful, and it maintains agricultural population, though not on a high level of subsistence.

Apart from automatic small-holdings policy, the main criticism is directed against farming on a scale which does not permit of proper specialisation, and has made a tradition of mixed farming. He points out that it is this kind of farming—stock and crops—which is mainly suffering, and that distress is less with the specialised products of milk and grazing. Further, he shows how certain pioneers of specialised farming, using chemical fertilisers and mechanised methods, have successfully worked on factory lines. It is through Mr. Orwin's work that these important instances of new ideas in British farming have become generally

known. The mixed farmer has, in his view, too many different things to think about; he cannot co-operate successfully in so many directions; and he cannot really know the cost of any of his products in the rotation. What is the lowest cost at which barley can be successfully grown in this country? We do not know, Mr. Orwin replies, until we have applied large-scale mechanised methods to the growing of barley by itself, in the districts best suited to that crop, by farmers able to apply the special results of research to that particular problem. For that purpose, we have to get off the horse-power unit, and the hedged-field unit, and the family unit; it means a new kind of capitalisation and of process. The same considerations apply to all cereals, to fruit, milk and grazing.

His proposal is therefore for a National Survey of the agricultural land, to decide what districts are most suitable for what kinds of produce, and that farming shall then specialise itself according to its most efficient unit of working; subject to family farming being provided for in districts where there is least to be said against it, or unless family farming happens to be the right kind of farming for any product. He wants a reference "to examine the farming systems of England and Wales, and the soil, climatic and economic factors controlling them, in relation to (1) the further development of specialisation of crops and live-stock, (2) the improvement of the standard of labour by the extended mechanisation of agriculture, (3) the rationalisation of land settlement."

This means a complete review of the bounds now set by differences of field, farm and estate. For example, in an arable district, where the efficient factory farm might mean up to 5,000 acres, he is prepared to pull down the hedges and plough up the ditches. There is no solution for the problem of estates except the State ownership of agricultural land, a proposal corresponding to that for the nationalisation of mining royalties. The extinction of owners' and tenants' interests may have to be gradual, for example, when leases fall in or estates pass at death, but the important thing is to have a point to march on. The view that some kind of State ownership of agricultural land was fundamental to reform, first put forward by Mr. Orwin and Mr. Peel, was independently adopted in the Liberal Land Inquiry.

These ideas are revolutionary, and will frighten many land reformers. But the value of this book is the march of a sustained argument which brings under review, and places in a new order, the fullest results of modern agricultural inquiry. The alternative

is to go on with the "agricultural policies" which seem to be expected of every successive Government. Mr. Orwin's is put forward as an efficiency policy, but, as said above, it may not prove to be a greater employment policy. If on this latter ground we have to face agricultural protection because agriculture is a "life," as Mr. Orwin seems to think may be temporarily necessary, the gains of efficiency are an offset to that cost.

I should like to add that there is one matter on which he has not touched. Every enquiry into agriculture has shirked the question of a certain alternative "use of the land," namely, hunting. We ought to be alive to the fact that our agricultural land is hunted over for five months of the year. We do not know at all whether this is a large or a small detriment to farming. It is foolish to talk about "keeping down foxes." On a sample taken last winter, 28 meets a day hunted 78 foxes and killed five. Mr. Orwin will clearly have against him in his drastic proposals a strong vested interest in the occupation of marking foxes to ground over a nine-mile point. We ought to know how this affects farming as a matter both of cost and of the relative local prestige of the uses of the land. May one who has worked with Mr. Orwin in a large agricultural inquiry, and who is grateful to him for the stimulus of this bold redirection of thought, suggest that his Institute should grasp as fearlessly this thorny and hitherto reserved question? D. H. MACGREGOR

Joint Stock Banking in Germany. By P. BARRETT WHALE. (Macmillan & Co. 16s.)

THE English banking system has been studied by foreign economists at various times, and, on the whole, not infrequently. Works have been produced by them dealing with the Bank of England and the Joint Stock Banks from historical, comparative and critical standpoints. We may, perhaps, properly flatter ourselves that the reputation and character of the English system serve largely to explain the attention attracted to it. But recent manifestations of the critical spirit by acute observers suggest that in modern banking policy we may possibly gain from a lesser degree of self-satisfaction and a readier tendency to profit from foreign experience. In undertaking the volume under review Mr. Barrett Whale does not explicitly announce that his object has been to give the desired lead by undertaking a survey of German Joint Stock Banking, but it may be presumed that such was his motive. Congratulation is due to him on account

of his initiative and enterprise; and it is to be hoped that he will not lack followers who will be equally painstaking in examining into the merits and demerits of other foreign systems.

The title and sub-title show that Mr. Whale has confined himself to a study of the German "Creditbanks," and actually he has restricted his matter to the particular type of Joint Stock Banking comprehended by this somewhat amorphous term. The wisdom of this restraint, apart from other considerations, lies in that he has been able to include under one cover a detailed survey of Joint Stock Banking in pre-war, war and post-war years up to 1928. It has also served his deeper purpose of making a comparative study of one important type of financial institution. Obviously the main drawback to a separate treatment of one kind of banking activity is the difficulty of reconciling it with the general banking *milieu;* and in view of the varied forms of banking enterprise which have long existed in Germany, this difficulty is enhanced. (In the case of Germany the delimitation of even private and Joint Stock Banking is more than usually troublesome.) Mr. Whale has met it by sketching in the background where this was deemed necessary, and by making definitive references where this was thought to be inevitable. These resorts may be judged to have succeeded very largely in removing the drawback entailed by a specialist study; and only minor objections could, or should be advanced. Yet it is hard to abstain from suggesting that while, *e.g.*, the narrative makes satisfying references to the part played by the Reichsbank, more might profitably have been said of the precise relationship existing between the Reichsbank and the "Creditbanks" and the reactions of the policy of the one on the other throughout. Again, Mr. Whale has elected to refrain from comparing and contrasting principles and features of Joint Stock Banking in other important countries; but, to take two instances, his treatment of German bank amalgamations might conceivably have been assisted by reference to England and the U.S., while his excellent exposition of the relationship between German commerce, banking and industry would have gained in lucidity and perspective if he had invoked the aid of cognate banking philosophy in France and England.

As for the actual subject-matter, this is dominantly chronological, and sub-dominantly by specific topic. After an introduction designed to clarify the general scheme of German banking, the usefulness of which cannot be questioned, Mr. Whale proceeds in Part I to give a short account of the origin and growth

of the "Creditbanks" up to 1913. This chapter gives an enlightening survey. Notwithstanding extant German writings, however, it is scarcely full enough to serve its purpose and would have gained from a more exhaustive historical excursioning. Mention is made of the aims and principles of the early "Creditbanks," but their destined subsequent importance would excuse a more comprehensive account of their origins. This criticism needs to be tempered, however, in view of the historical interpolations in the subject-matter of the following chapters of Part I, which deal respectively with the position of the "Creditbanks" in relation to industry, foreign trade, the money market and "Creditbank" business. Of these, the best is that dealing with the banks and the money market, where an effective, balanced and adequate account is given of the events preceding and subsequent to the *Bank Enquête* of 1908. The one-time prominent issue of the adequacy of reserves considered in relation to the special features of German Joint Stock Banking practice is carefully summarised and capably judged.

Part II is given up to the war period and afterwards, up to 1928, while some references are included to the events of 1929. To describe and assess accurately the effects of inflation, war financial policy and stabilisation on the "Creditbanks" calls for great discernment; for the process of disentanglement is highly complex. The chapter devoted to events since stabilisation is clearly the best, and also the most interesting. While some banking students may not find themselves able always to agree with Mr. Whale's analysis—thus it may be thought that he underrates the real significance of the "stabilisation" crisis as opposed to that of general trade depression—none will be disposed to deny the penetrating quality of the analysis, nor the luminosity of the writing. Considerations of space doubtless forbade a fuller account of the industrialists' attack on the banks, but since this is a matter of no small significance, more extended comment would have been welcome. For the same reason it would have been desirable to penetrate more deeply into the reasons for the progressive post-1923 concentration of German Joint Stock Banking, and in particular the new phase of the movement begun by the notable amalgamation of 1929 between the Deutsche Bank and the Disconto-Gesellschaft.

The last chapter is devoted to conclusions. In view of the fundamental issues raised in earlier pages, one feels that Mr. Whale has here allowed himself too little space; and one feels this the stronger because of the importance for German banking

of the events of 1929—which has been pronounced to be the most critical year since stabilisation. But the reader must console himself with the knowledge that he may detect anticipations of much that rightly belongs here in immediately preceding chapters, while where judgment is withheld he cannot complain that the material is lacking.

Taken as a whole, it is a worthy book, comprising as it does a careful, comprehensive account. It represents the results of long and thorough research, and deserves the attention which undoubtedly it will receive.

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Federal Reserve Policy, 1921–30. By HAROLD L. REED. 1930. (McGraw Hill Publishing Co. Pp. ix + 207. 12*s*. 6*d*.).

The Federal Reserve System: its Origin and Growth. By PAUL M. WARBURG. 1930. (The Macmillan Company, New York. 2 vols. Pp. xxv + 1752.)

MR. REED'S book provides an historical sketch of Federal Reserve operations in the ten years from 1921 to 1930 and a running commentary and criticism. It is freshly and clearly written, and the matter is intensely interesting. Eschewing irrelevant detail, Mr. Reed goes straight to the heart of the series of problems with which the Reserve Banks have been faced, and handles his subject with a bold directness. Not himself attached to the system on which he is commenting, he is able to discuss fundamental questions more freely than those who have hitherto written the best books on this topic.

His narrative not only gives the principal facts in the history of these years, but also seeks to interpret them. He admits at the outset that he is labouring under a serious difficulty. Interpretation involves ascription of motive; naturally there is no authoritative statement of the motives which governed many important acts of policy, nor is there any method of research by which the motives can be certainly determined. Even if the minds of all those responsible for action could be laid bare, the task of the interpreter would still be highly complex. Some of them may well have been none too clear-headed at the time; different motives may have led different individuals along the same path; policy may often have issued from a conflict of opinion and the triumph of one school of thought over another.

Mr. Reed has had such opportunities of reaching an under-

standing of the mind of the system as personal contact and discussion with many of its officials can give. His method in this book is to review the relevant circumstances in each case, to state the arguments which an intelligent advocate of alternative policies might have adduced and to test actual policy by the balance of sound argument.

It is not possible here to trace the course of Mr. Reed's analysis. The raising of rates during the spring of 1923 in the face of huge gold reserves and the statement of policy published in the Board's Report for that year have combined to suggest 1923 as the period in which new notions of the proper criteria of banking policy began to affect action. Mr. Reed places this development a year earlier. He does not think the natural desire to increase earning assets a sufficient explanation of the purchase of securities by the Reserve Banks in 1922. " Somewhere in the system there was profounder and more discriminating thinking " (p. 41).

In the period between 1922 and the crash, there were two occasions on which the System took deliberate steps to create an expansion of credit on a big scale, in 1924 and in 1927. Mr. Reed finds the " aggressive " policy justified by the international and domestic situations on each occasion. He considers that the measures of restraint needed and effected after the easement of 1924 mild or negligible. They were sufficient, however, to be stamped vividly on the memory of those who were apprehensive of the consequences of our impending return to the gold standard at that time. He draws a tentative conclusion of no little interest. " The fact that vigorous restraining measures were not required in 1925 may have made the Reserve Banks more content with the mild restrictive measures of 1928. To the gentle restraints of 1928, in turn, no small share of the cause of the catastrophic stock-market decline in 1929 may perhaps be attributed " (p. 93).

Mr. Reed inclines to the view that the easing measures of 1927, called for by the international situation and by the world-fall of prices connected, he holds, with the drain of gold to the U.S., were too long deferred; he is doubtful whether the expansion of credit, when it came, can be shown to have been excessive; he holds that the restrictive measures in the first half of 1928 were inadequate.

As he draws near the events of 1929 the general course of his reasoning becomes a little less clear. He provides an elaborate statistical argument to show that the boom in securities was not taking money away from industrial and commercial purposes, but was carried by an increase in the velocity of circulation. The Federal Reserve authorities were right, however, to be alarmed at

the speculative use of credit, "not because such credit was made unavailable for other uses, but because speculative demands threatened an excessive expansion of credit in general" (p. 176). To correct the situation the System should have relied on its general powers of restricting credit, rather than on an attempt to direct the use of credit by persuasion and advice. Not that a central banking system should pay too much attention to the vagaries of the stock-market. The trouble was that the fallacious notion that money was being absorbed in the security market prevented the Federal Reserve authorities from taking sufficiently drastic measures to reduce the total amount of credit outstanding, which in 1928–9 was excessive in relation to the needs of industry, judged by the long-term trend of expansion. Such seems to be the drift of his reasoning.

In a single sentence Mr. Reed expresses his view as to the proper policy for a central banking system. "The stabilisation of business seems to be very largely a matter of avoiding serious departures from a rate of credit enlargement corresponding roughly to the physical growth of a country's trade" (p. 199). This principle leaves a considerable range for further determination.

Hints are thrown out of the difficulties inherent in a federal system. "The system of regional Reserve Banks has many fine features, but, nevertheless, it offers distinct obstacles to unified interdistrict policy." In monetary policy prompt action is of the utmost importance. Effective action is usually impossible without the collaboration of the System as a whole. The delays in 1927, the insufficient severity in 1928 may have been due to the failure of the average mind or even merely of the most slow-moving minds in the System to keep pace with the best opinion. In the absence of a dominating personality or of special circumstances which allow popular sophism to be added to valid argument, the System may fail in practice to operate in accordance with the advice of its own most capable leaders, or to reap the fruits of the wisdom, which statistical research and rigorous analysis are making available for its guidance.

But this is dangerous ground. The whole history of banking in the United States abounds in examples of obstacles due to particularist sentiment and the fear of Eastern domination. The Federal Reserve System was a hard-won compromise. Mr. Paul Warburg in his two massive volumes shows the difficulties of this kind which those responsible for its inception had to overcome.

Mr. Warburg's book is mainly concerned with the origin of the Federal Reserve System. He traces the consolidation of opinion

favourable to a central banking system and analyses the successive Bills which were before Congress. The two evils which he was himself particularly concerned to combat were excessive decentralisation and political control of the System. In the last chapter of his main text, "Looking Forward," written in 1927, he finds that the two most serious shortcomings of the System, as it is, are, first, "its failure to create important discount markets outside of New York City, and, as a corollary, its failure to lessen the congestion of the country's unemployed funds on the New York Stock Exchange," and, secondly, its structure, from which the dangers of decentralisation and political control are not completely eradicated. Mr. Warburg has constructive suggestions for remedying these last defects within the existing frame-work. He desires to depose the Secretary of the Treasury from *ex officio* chairmanship of the Board, to bring the Comptroller of the Currency's Department under the authority of the Board and to place four governors of the Reserve Banks on the Board. In this way he would hope to make the System more independent and more cohesive. It is worth noting that in a discussion of the crisis of 1929 (Addendum II) Mr. Warburg shares Mr. Reed's view that the expansion of 1927 was justified. The subsequent disaster may be attributed to the weakness of the Banks in the following year. This weakness may be taken to illustrate the need for reform on the lines suggested. The part which Mr. Warburg played in the foundation of the System, his practical connection with it from its beginning and his sympathy with its broader aims invest his recommendations with special authority.

The main interest of the work under review, however, is in the light it throws on the history of the inception of the System. It consists partly of a narrative and partly of a collection of Mr. Warburg's essays and addresses, dating chiefly from the years 1907–17. It is convenient to have these scattered writings brought together. Knowledge of the early history both of its general structure and of the detailed provisions of the Act is essential to a proper understanding of the System as it is; Mr. Warburg's book is an important aid to the acquisition of such knowledge.

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The Theory and Principles of Central Banking, with special reference to the working of the Bank of England and of the Federal Reserve System of the United States. By WM. A. SHAW, Litt.D. (London: Pitman & Sons. 1930. Pp. xii + 254. 12*s*. 6*d*. net.)

THERE was once a soldier who complained that all the rest of the battalion was out of step; he was the prototype of Dr. Shaw. Never was there so perfect a heretic, never so complete an unbeliever in current monetary theory, and one reviewer cannot hope to track down all the divergencies from accepted doctrine. One might recommend the book to examiners as affording useful tests of their victims' comprehension of the principles of banking and finance, but not to professors as a text-book, for while there is plenty of dogmatic assertion there is little of cohesive and reasoned theory.

His heresies go deep. "The quantity theory of money is simply a hopelessly confused and confusing figure of speech, and it is as the poles sundered from the actual facts and data of price and exchange phenomena" (p. 193). "Money is not a value or a quantity, but a function or a capula" (p. 192). "Price is not an expression of the ratio of goods to money. It is the expression of the countless ratios of goods to goods, and the possible variations of those ratios are as infinite as the sands of the sea" (p. 194). Apparently there can be no theory of price, or, if there is, Dr. Shaw has vouchsafed us no glimmer of a light into its recesses. He has no use for a Central Bank (in the ordinary acceptance of the term) as the issuer of currency; he does not believe in its independence of the Government, and goes so far as to attribute the belief in its necessity partly to "the lurking belief at the back of every legislator's mind that if the worst comes, and if debasement has to be resorted to, the Central Bank will be a ready-made tool or engine by which to operate the debasement" (p. 76). After an historical survey which will surprise many students, Dr. Shaw concludes that "the historical survey agrees with pure theory in declaring that currency control is not and cannot be a function of a Central Bank, and that paper currency must be entirely automatic alike in its issue and its retirement, just as the previous metallic gold circulation had been, and therefore that the control of it lies in the community, not in the Central Bank" (p. 57). Such a currency we had for a while in the Currency Note during the period when there was no limit fixed to its issue. "For the first time in history the world had a sample of a truly

automatic currency, issued only by the State, sold only at full face value, supplied or retired in complete accordance and response to the community's unfettered demand or need" (p. 51). Even if Dr. Shaw's account were in strict accordance with the facts (which is not admitted), the language of his praise has unpleasant echoes of the defence of the German note issue—that it was not inflationary since it was issued only on demand. The amalgamation of the note issues in 1928 is roundly condemned. "We must revise the amalgamation and suppress the Bank of England Note and Bank of England control. We must reinstate the State note and the principle of uncontrolled automatic self-regulating issue. And this we must do while yet there is time. We must not wait for the next great war or for another world-encircling financial crash" (p. 80).

The utility of the Central Bank as a re-discounter is contested and its assumed necessity as custodian of the reserve of the banking system meets with short shrift. "Currency as a State issue and as guaranteed by the State needs no cover at all for *convertibility* purposes. Its cover for *redemption* purposes is its own Redemption Fund, and that is (let us suppose) segregated and insulated alike from the banking system and from the Government system by being deposited in the hands of Redemption Trustees. Therefore, for such a currency no cover at all, in the old banking conception thereof, is requisite. Banking cover consists of a certain percentage of deposits kept in a liquid form. Whilst our currency was metallic, that liquid form meant—gold. Now that our currency is inconvertible paper, that liquid form means—securities. In this case, therefore, as we are situated to-day, the banking system of Great Britain (if granted the guarantee of the removal of the maximum limit to the note issue, and if granted the right of purchasing currency by deposit of securities) needs no metallic reserve. It needs only a securities reserve, a reserve composed of securities" (pp. 108–9). Under such a reform the Bank of England could "freely devote its whole reserve to supporting the exchange and so keeping the free gold market working smoothly and the sterling gold standard operating without strain between the gold points" (p. 109). The Bank should confine itself to this international activity and should retire from the attempt to control discount rates in the money market. "Presuming it to be so eliminated, then it would be left to the Joint-stock Banks to build their own co-ordinated federation, and to submit themselves voluntarily to their own Central Board. That Central Board would fix its own discount rate, and in fixing

it would have regard in the main to domestic conditions. But if the Discount Houses, acting as the satellite of such a co-ordinated banking system, were to inform the Central Directorate that foreign competition for bills was becoming destructively keen, the Central Bank or the Central Directorate would review the domestic discount rate and readjust it to meet such competition" (p. 139). "The interposition of the Bank would only be called for when the outflow of gold or the upsetting of the exchanges was demonstrably not the result of trade balance, but the result of financial movements or financial operations arising from abroad" (p. 199). Thus the Bank was justified in putting up its rate to 6½ per cent. in the autumn of 1929, and "this action would have been as ideal in effect as it was patriotic in intention if the 6½ per cent. foreign or exchange Bank of England Rate had co-existed with a 3 per cent. domestic federated Central Bank Rate. In that case we should have had a protective 6½ per cent. ring drawn round the London Money Market, and at the same time domestic industry would have enjoyed a 3 per cent. domestic interest rate" (p. 199). It all sounds terribly attractive, but in the absence of very detailed analysis Dr. Shaw's assurance is not sufficient guarantee that two discount rates, one foreign and one domestic, could exist at the same time.

"The policy of such a Central Directorate is not to control prices but to co-ordinate production" (p. 198). "Control of prices by a Central Bank through its supposed control of credit is a pure myth and an impossibility" (p. 196). The Directorate would virtually regulate production by means of its knowledge of the daily statistical position as regards the applications for loans and the funds, or deposits, available to meet them. Whether this would stop over-trading would depend on the wisdom of the Directorate, and Dr. Shaw's expectation of wisdom from his Directorate of the future is curiously at variance with his condemnation of the folly of the directorates of the past. There are many more passages in the book which call for comment, and one would pause to praise Dr. Shaw's scathing criticism of the "window-dressing" policy of the Joint-stock Banks, and his demonstration of the ineffectiveness of the Federal Reserve Board's rediscount rates as means of controlling credit. One surprising statement must be corrected, that in Italy "the note issue is a monopoly of three banks" (p. 39), for the note issues of those banks were unified under the Bank of Italy in 1926. Again, on p. 55, the total issue of Bank of England and Currency notes, without deduction of those in the Currency Note Redemption Account

and in the Banking Department of the Bank of England) before amalgamation is compared with the combined issue (less the notes in the Banking Department) after amalgamation, which does not seem to be legitimate. On p. 102 there occurs the following passage, which can only be described as an amazing muddle. Referring to the restoration of the gold standard in April 1925, when the gold reserve was "£155,742,064 as against a circulation of £148,386,705," he proceeds:—"What did this circulation represent? Deducting the £53,950,000 held by the Currency Note Redemption Fund and £19,750,000 for the fiduciary part representing the Bank's capital and the rest, we are left with a circulation of seventy-five millions (£74,686,705), which represented several things, viz.: (1) the gold reserve of the Joint-stock Banks, which they had turned over to the Bank of England under pressure; (2) gold deposited by allied countries as security for war debt owing to us. The amount deposited by France would appear to have been at least £50,000,000." The gold which came to us during the war from allied countries fell into three categories: gold from Russia and France which was sent on to the United States and spent during the war: gold from Italy sent to the United States after the end of the war; gold deposited as a pledge by the Bank of France in 1916, the balance of which (£18,315,000) was restored in 1927. No part of all that gold was ever in the reserves of the Bank of England.

HENRY W. MACROSTY

The History of the Union Bank of Scotland. By ROBERT S. RAIT, Principal and Vice-Chancellor of the University of Glasgow. John Smith & Son, Glasgow (Ltd.) 1930. Pp. xviii + 390, with chart and 19 plates. 15*s.* net.)

THE insistence in recent years on amalgamations as an element in Rationalisation, which like Aaron's rod seems fated to swallow all the rest of the conception, raises the question of combinations so to speak *ad hoc*, where a large number of firms are brought together at the same time, as contrasted with gradual absorptions as a process of organic growth. The data concerning the former are of necessity comparatively recent, and all that can be said is that the experience of the combines of the 'nineties is far from encouraging. All the more there is required an account of the other tendency of organic growth, and for this reason, apart from many others, Principal Rait's centenary *History of the Union Bank* is to be welcomed.

This Bank belongs to the group which came into existence after

joint stock banking was legalised, the original prospectus of the Glasgow Union Banking Company having been dated 1st January, 1830. The use of the word "Union" in the title was evidently intended to emphasise the policy of community and amalgamation of interests between town and country. "A Bank," the prospectus states, "placed on a basis at once worthy of the wealthiest and most enterprising County in Scotland and of the second City in the Empire, would form an amalgamation of interests (*i.e.* between town and country) so natural and so necessary, that the undertaking would be no less creditable and advantageous to the parties concerned than beneficial to the public" (p. 215). As matters turned out, the name soon became associated with amalgamation in quite a different sense, and six years after its foundation the Bank began to absorb or to unite with other banks in quick succession. The numerous failures in England and Ireland amongst private bankers in the previous thirty years had prepared the way. In 1836 the Glasgow and Ship Bank, which consisted of two banks—the Ship founded in 1750 and the Glasgow Banking Company founded in 1809—previously joined, was acquired. In 1836 also the Thistle Bank Company, dating back to 1761, was purchased, and two years later the Paisley Union Bank, which had started in 1788. Then in 1838 came the interesting and important union with Forbes, Hunter and Co. This was an Edinburgh firm of private bankers, the origin of which may be traced to the house of John Coutts, which was carrying on business in 1723 and by 1749 was undertaking banking. Sir William Forbes of Pitsligo, the author of *Memories of a Banking House* and the friend of Sir Walter Scott, was a partner. In 1843 Kilmarnock and Ayr banks were added. It is possible to see an orderly plan of development, first to consolidate, as opportunity arose, at the centre and then to go further afield. The latter development caused a change in the title of the Bank, which from 1843 was the Union Bank of Scotland. The next absorption was that of the Banking Company of Aberdeen in 1849, and the last of this series that of the Perth Banking Company in 1857.

It will thus be seen that it is not an easy tale to tell if due weight is to be given to the whole conditions as they developed at each stage. In fact, Principal Rait devotes over two hundred pages (or rather more than half the book) to the environment of Scottish banking during the first century of its existence, including a more detailed account of the origin and development of all the various concerns taken over by the Union Bank. This is a task which makes full demands on the craftsmanship of a former

historiographer of Scotland, and the result of which is wholly satisfying. While some of the concerns have already been adequately dealt with previously, such as the Ship Bank, the author has been able to secure new material from documents now in the possesssion of the Union Bank and from the correspondence of the first Lord Melville. The accounts of the other less known banks are both of interest and importance.

The second half of the book consists of a history of the progress of the Union Bank. The balance sheet totals at the end of its first year were three-quarters of a million. In 1850 (after most of the absorptions) the figure was seven and three-quarter millions, and in its centenary year nearly $34\frac{3}{4}$ millions. This orderly progress was not without its periods of stress and excitement, but perhaps its greatest interest will be in the foundation it will have laid for events still in the future. One of the first signs of what is spoken of as the Southern trend of industry was in the transference of control of several Scottish banks to London. There is some resemblance to the position during the first thirty years of the career of the Union Bank, for the present Scottish banks occupy a position as regards larger bodies in certain respects not dissimilar to that of the private banks at the earlier period. Will the Union Bank be able to maintain its independence?

Banking, nowadays, is far removed from the spectacular, yet there are pages in this history rich in colour. A few may be mentioned. During the scarcity of coin at certain periods in the eighteenth century banks were hard put to it to find specie. We do not hear of heated sixpences, but on one occasion, when the teller had exhausted all his expedients for delay, he handed over to the bank porter, who is recorded to have blundered " with great alacrity " (p. 31). One wonders if it was a joint effort of these worthies which limited payments in cash to £36 in a full working day. Robin Carrick of the Ship Bank was a well-known character, and he was credited with the devising of his own " Deil's mark " on bank bills (p. 48). There were two curious instances of forgery, the one in 1814 of Perth Bank notes by French prisoners of war, and the other of Union Bank notes in 1913 by convicts at Peterhead prison (pp. 141, 338). As has been mentioned, the Ship Bank was founded in 1750. One of its notes, dated 2nd January, 1754, was presented for payment in 1920 (p. 332). One of the amalgamated companies—Hunter's and Co., of Ayr—advanced £1,000 to purchase food when the people were in distress owing to the appearance off the coast of Paul Jones in 1778 (p. 179). Finally, in 1924 the Union Bank became interested in the celebrated

crucifix of Borgocollefegato which was deposited in the Bank during the proceedings to determine its ownership (pp. 334–36).

W. R. SCOTT

Synthetic Economics. By HENRY LUDWELL MOORE. (The Macmillan Company, New York. 1929. 8vo. Pp. vii + 186. Price 12*s.* 6*d.*)

THE general expression of the relations of economic quantities in the form of mathematical equations, while it has led to important results, has yielded little that is directly applicable to particular practical problems. Of the precise forms of the functions involved in the statements of the variations of the quantities of particular goods demanded as their prices vary, or produced as the result of the co-operation of productive factors in quantities specified—or varied in accordance with specified principles—comparatively little has been determined. The mathematical expression of economic relations has been concerned rather with the statement of the conditions of equilibrium than with the expression of the character of the changes in a moving system. Professor Moore has broken some fresh ground in this little book, which will be examined with interest by those who have been students of the work of Cournot, of Walras, of Pareto, and of such later writers as Wicksteed. That it would have presented features of interest to the late Professor Edgeworth is certain, in view of his concern with the work of the two last-named writers in the early years of the ECONOMIC JOURNAL.

The procedure adopted by Professor Moore can be described fairly briefly. Taking the case of the relation of the quantity of a particular commodity demanded at any given price to that price, a series of approximations are obtained by assuming, successively, that the elasticity of demand is constant, is a linear function of the price or is a quadratic function of the price. In the case in which only the price of the commodity in question needs consideration, denoting that price by p and the quantity demanded by D, the third of the assumptions results in the equation

$$D = B \,.\, p^{\beta} \,.\, e^{\beta' \cdot p + \frac{1}{2}\beta'' \cdot p^2}$$

where B, β, β,$'$ and β'' are constants to be determined from the conditions of the problem. If β'' be made zero the equation is reduced to that corresponding to the second hypothesis, and if β' is also made zero, the first of the three hypotheses is represented. Similar assumptions as to the form of the relation of elasticity of supply to price serve for the establishment of a like equation expressing the amount supplied in terms of the price required

by the producer. The data relating to the recorded crops of potatoes in the United States and the farm prices on 1st December in each year from 1881 to 1913 are used to illustrate the mode of derivation of the constants of the equations from appropriate statistical records. The series of records are used for the determination of the lines of trend of prices and of production, and the D and p of the above equation are reduced to pure numbers by expressing each as a multiple of the corresponding datum for the point on the line of trend relating to the same year, *i.e.* $\frac{p}{\bar{p}}$ is written for p, where $\bar{p}$ is the price represented by the point on the line of trend corresponding to p, and similarly for D.

This device of expressing the various quantities in terms of their ratio to the amount represented by the corresponding position on the line of secular trend is used throughout Professor Moore's discussion of his problem. His generalised expression of the relation of demand to price, when the quantity demanded is stated as a function, not of a single price-ratio, but of all the price-ratios of the various commodities on which the available resources might be expended, involves the replacement of p^{β} in the above equation by a term of the type

$$\left(\frac{p_1}{\bar{p}_1}\right)^{\beta_1} \cdot \left(\frac{p_2}{\bar{p}_2}\right)^{\beta_2} \cdot \left(\frac{p_3}{\bar{p}_3}\right)^{\beta_3} \cdot \cdot \cdot \cdot \cdot \cdot$$

In the exponential, the linear term is replaced by a corresponding linear function of all the price-ratios, each with its appropriate coefficient, and the quadratic term by a similar sum of squares, each with an appropriate coefficient. The resulting equations are simple in conception if cumbrous in expression.

A similar procedure is applied to the determination of a "production function," expressing the amount produced in terms of the factors of production, and based on the treatment of the relative efficiency of organisation (defined as the ratio of the relative change in total production to the relative change in total cost) as, respectively, constant, a linear function of the quantity produced and a quadratic function of the quantity produced. The form obtained for the production function is precisely analogous to that described above for the quantity demanded or supplied expressed in terms of price-ratios.

Results of the character described are of very great interest and deserve careful study. It may be found that other assumptions than the three—of constancy, linear and quadratic form—referred to above as made in respect of the expression of elasticity

of demand and analogous concepts in terms of the principal variables on which they depend, are not less simple or appropriate and yield instructive alternative types of demand function, supply function, production function, etc. The field is large and promising.

The securing of statistics from which it may be possible to determine the parameters of the different functions is, apparently, not regarded by Professor Moore as a very serious obstacle to the development of the study with which his book deals. The one concrete case used for illustration may be criticised in regard to the closeness of its relation to the type of problem considered. Even if the records of potatoes grown are exhaustive and the published prices for the beginning of December are thoroughly representative, these prices may fail to represent truly the season's average condition. Another point is that the shapes of the curves of trend at their termination might be modified if the data of later years were available for use in fitting curves to observations. This consideration may be of serious importance if the author's "hope of introducing into economic life rational forecasting and enlightened control" is to secure realisation on the basis of these studies. The dangers of assuming that a formula that fits the relations of the past will be reliable as applied to the like relations of the future hardly need to be emphasised here.

Formidable as are the groups of equations presented and the difficulties in giving them reality by the determination of their various constants, they may assist in the development of a conception of economic equilibrium as not a static, but a moving, equilibrium. It is possible that they may assist in attaining some more satisfactory analysis of economic oscillations in the past, even if they should not furnish an apparatus capable of handling the oscillations actually in progress at a given moment. Professor Moore has attacked anew one of the formidable problems of a generation ago, and utilised the developments in mathematical statistics to advance the problem towards its desired general solution. Incidentally he gives a formal demonstration of the theorem familiar to readers of Wicksteed's little book, that the payment of each of the factors of production on the basis of its marginal utility is exactly provided for, without excess, in the value of the product. This result is derived from formulæ expressing the equality of the price of each product with its cost of production.

A. W. FLUX

A Study on the Minimum Wage. By J. H. RICHARDSON. (Allen and Unwin, Ltd. 1927. Pp. 198. 7*s.* 6*d.*)

MR. RICHARDSON has written a plain straightforward account of the theory and practice of minimum wages. He restates the familiar dilemma upon which all minimum wages are impaled. Minimum wages must be fixed either by reference to some ideal standard of living or to industry's capacity to pay. But since it is impossible for industry to pay higher wages than it can pay, and since minimum wage laws fail of their primary purpose if they do not provide a fair subsistence, neither of these principles can in practice be applied without regard to the other. Hence precepts such as that which enjoins Western Australian arbitrators to fix wages that will enable the average worker "to live in reasonable comfort, having regard to any domestic obligations to which such average workman would ordinarily be subject," are founded less on scientific principle than on the sands of expediency and compromise.

Mr. Richardson holds that a clear distinction should be drawn between basic minimum wages and higher minima applicable to skilled workers or other special groups. The basic minimum, in his view, should take no account of the paying capacity of individual employers or industries. On the other hand, it cannot be entirely arbitrary. Obviously the ideal standards—the subsistence standard, the human needs standard, the standard of comfort—calculated by various investigators have no absolute validity. Comfort in Czechoslovakia may be bare subsistence to the New Yorker. Mr. Richardson frankly recognises that a decent standard of living means, for practical purposes, something not too far below the standard actually prevailing, and proposes accordingly to fix his national minimum at an arbitrary proportion (80 per cent. is suggested) of the current average wages of unskilled workers. This figure must then be adjusted to meet variations in the local cost of living, and must be revised upwards or downwards as the figures of general national productivity rise or fall. In this way Mr. Richardson claims that his minimum wage would respect the paying capacity of industry as a whole without being dragged down by the shortcomings of particular industries or establishments. Any minima above the basic wage, on the other hand, may, he holds, quite properly be calculated with reference to the financial results of the particular industries in which they are enforced.

The book includes chapters on Family Allowances and on

Men's and Women's Wages. The author takes the view that it is better not to dabble in family endowment schemes as long as we are as uncertain as we are about their effect on the birth-rate; but he does not object to the principle being adopted "to prevent misery" in the case of specially low wages. In general he would have two minimum rates, one for men, based on the needs of the average family, and one for women, calculated on the cost of living of the single woman worker. Wages above these minima, on the other hand, are to follow the rule of equal pay for equal work. Nothing is said as to the practical difficulties which would surely result from such an arbitrary division. If the basic minimum wage law prescribed widely different rates for men and women it would hardly be possible to prevent similar differences becoming general throughout industry.

Mr. Richardson concludes with a chapter on International Action. This is disappointingly slight and does not take us far beyond the obvious fact that an international minimum wage must be an idle dream, at least for many generations to come. Indeed the book as a whole is open to the same criticism, that it constantly skims the surface of subjects whose depths deserve exploration. What Mr. Richardson says is sensible and lucid and to the point; but his book does not contain much abundance of new material or original contributions to economic thought.

BARBARA WOOTTON

Industrial Evolution of India in Recent Times. By D. R. GADGIL (Oxford University Press. Pp. 352. 9*s*. 6*d*.).

Rusticus Loquitur; or *The Old Light and the New in the Punjab Village.* By M. L. DARLING. (Milford. Pp. 400. 5*s*.)

IN the first of these books the author has sketched the evolution of Indian industries from the middle of the nineteenth century onward. He has not, however, confined himself to a mere statement of progress, but has traced its effects on the existing economic structure and the material condition of the artisan and agricultural classes. A clear and impartial account is given of the economic transition of India from almost mediæval to modern conditions, and of the main factors which have influenced the rate of progress.

In the opening chapters the principal features of the internal economy of India in the early part of the nineteenth century are graphically depicted. Owing to the almost complete lack of communications there was little trade in existence. The villages were largely self-supporting, the towns were industrially unimportant and concerned mainly with the production of textiles and

other articles of luxury for the local courts. These handicrafts suffered from the extension of British rule, but in any case it is doubtful if they could have survived the modern demand for cheapness. The author's general conclusion is that whatever the other effects of British rule may have been, it left the industries and industrial organisation of India much what they were before. The change took place with the beginnings of railway enterprise in the 'fifties, followed by a vigorous programme of road construction. The effect was twofold. India's primary products found a ready market with the West, and in turn the manufactured goods of Europe could find their way up-country. From that time its economic history has been much the same as that of other countries. Capital won in commerce sought an outlet in the introduction of factories equipped with modern machinery, whose manufactures at first ousted the hand-made article and then gradually supplanted imports from abroad. An important feature, however, distinguished development in India; many of the principal industries, such as jute, coal and iron, were pioneered by British capital. The subsequent tendency has been towards the growth of purely Indian concerns and the substitution of Indian for British shareholders in existing companies.

One of the most interesting subjects dealt with is the effect of the introduction of factory products on village industries and the artisans practising them. The early successes of the Indian mills were at the expense of the indigenous industries. One after another these handicrafts gave way to home or foreign mill competition, and the workers were thrown out of employment. The great majority, unable to find alternative occupation in the towns, were forced to join the ranks of unskilled labour, for the most part on the land. The insistent demand for protective duties is in a measure due to the conviction that only by a speeding up of the process of industrialisation can the overcrowding on the land be relieved. On this point the author is not very hopeful. He points out that India labours under certain handicaps, not the least of which are the difficulties in procuring cheap power. The distribution of the coal deposits is very unequal and the quality often inferior. The hopes once entertained about the possibilities of hydro-electric development have not been fulfilled. While in certain favoured areas the advance may be rapid, for the country as a whole the future does not seem to hold in store any marked industrial transformation.

In the second of these books Mr. Darling studies certain phases of village life untouched in his former work, *The Punjab Peasant*

in Prosperity and Debt. In his latest book, as the title implies, individual peasants give their views on topics of most immediate interest to them. Their conversation with the author, ranging over a wide field, sheds a clear light not only on their economic condition, but on their ideas about the most important social and religious questions agitating changing India, such as caste, child marriage, the purdah system, etc. The one topic which vitally interested all was their daily bread; on the other hand, they showed themselves entirely indifferent towards politics. On the material side there is good evidence of rise in the standard of living and comfort, threatened, unfortunately, by the relentless increase of population with its attendant evils of overcrowding on an already fully burdened land. The more general subjects dealt with concern the working of new ideas on the minds of a people whose life has hitherto been regulated by age-long custom. The conclusion which stands out is that the peasant is slowly thinking out for himself such problems as caste and marriage custom, and is being forced by economic circumstances to abandon many practices formerly accepted without question. Education may be changing his outlook on life, but is not leading to any violent upheaval in his accepted beliefs. The whole forms a fascinating study of the clash of ancient and modern ideas in the minds of a slow-thinking but by no means unprogressive people.

H. R. C. HAILEY

The Agrarian System of Moslem India. By W. H. MORELAND, C.S.I., C.I.E. (Heffer, Cambridge, 1929. Pp. xvii + 296.)

THE author has written a number of books on the economic history of India during the centuries that it was under Muslim rule. He has been an official, and by training and experience possesses a thorough knowledge of revenue and agricultural matters of the present day. In his previous books he has largely relied on European sources. In this book he makes the direct attempt to gather materials from the books of historians who wrote in Persian on the Muslim period of Indian history. It must be acknowledged that he has read much, but it seems he has largely relied on dictionaries, misunderstood meanings of plain words, and involved himself in prolix discussions. This has a special importance, since he has built up theories on these terms, instances of which will be given later. As regards his method, sentences torn out of their context and applied here and there give quite a wrong account of happenings and their true import. He also becomes forgetful of strong evidence if he has made up his mind

about a certain point. His treatment especially of the Moghul period appears unsatisfactory. He is prone to build up theories, to play with facts and figures, to evolve hypothetical conclusions. His treatment of the revenue administration of Akbar does not bring light, but confusion. It would have been far better if he had incorporated in the body of his book translations of passages instead of building up opinions on them.

The book consists of eight chapters and nine appendices with a preface and an introduction. The main subject is an examination of the methods by which the State's share of the peasant's produce was assessed and collected from the twelfth to the eighteenth century—that is to say, during the period of Muslim rule in India. According to him, there were three essential constituents of the State: the Sovereign, the Army, and the Peasantry which paid for the first two. He holds that in Muslim India, as in the India of the Hindus, the agrarian system was a matter of duties rather than of rights, the peasants being there simply to till the soil and pay a share of the produce; their rights, if any, being subordinate to this fundamental obligation. For a proper appreciation of the conditions prevailing in India of pre-British days, he would eliminate three factors which characterise the British period—namely, (1) tranquillity enjoyed by India, (2) the rule of Law superseding the personal Law of the former kings, whether Hindu or Muslim, (3) prevalence of philanthropic ideals which have influenced the minds of the bureaucrats of the nineteenth century, as part of the *Zeitgeist*. One is tempted to ask what these ideals are which have been embodied in State policies. Do they relate to famine preventive measures, improvement of agriculture, reduction in the land revenue demand, or education, or a general effort to improve the standard of living of the people? Some of these—for example, improvement and development of agriculture, preventive measures against famine, a general regard for the economic welfare of the people and assessment of the land revenue demand at a reasonable figure—were not altogether unknown; in fact, were given special importance in the orders issued by many Muslim sovereigns in the past.

Chapter I opens with an account of the Hindu sacred Law. In the absence of information as to how the Hindu system was actually worked in the twelfth century, the author has to rely on the Hindu theory contained in the law books, and makes the admission that, being ignorant of Sanskrit, he has to depend on translations, and enters a caveat against the reliability of trans-

lations as guides in technical matters. According to him, the sacred Law of the Hindus contemplates an agrarian system similar in essentials to that which was found at the beginning of the Muslim period, and not very different from that which persisted to its close. In the Hindu State there is first the King and secondly the peasant. The duty of the peasant is to cultivate the soil and to pay a share of his produce to the King. The King's duty is to protect his subjects and to claim a share of the peasant's produce. The share of the produce taken is gross, without allowing anything for the cost of production; such allowances characterise the British period only. The author is not sure whether the conception of ownership of land had existed at the time when the sacred law of the Hindus was formulated, and takes the charitable view that though the Muslim sword might have killed the institution of ownership, it could not have eradicated the conception of ownership from the minds of the people. The conclusion at which he arrives is, in respect of both the Hindu and Muslim periods, that there was no ownership of land in the modern sense of the term. What this modern conception is, the author nowhere explains. Full freedom to buy, to sell, to bequeath, to inherit, to give away land existed during both the periods. There can be no question about this freedom, and the matter does not admit of argument. Wherein, then, lay the difference? In the unchallenged and absolute right of kings, whether Hindu or Muslim, to allow their subjects to hold or to occupy land, during their pleasure, and to deprive them of this right at any time. So argues the author. The evidence for it? One may waste a life-time in seeking for it in texts, Arabic, Persian or Sanskrit, before one comes across some scrap of information in the conduct of some despot. The statements of the author on the rights of the subject in the soil would be disputed by scholars this side of the Suez Canal. To Sir John Shore's question—"Why did the King purchase lands, since he was lord of the country, and might have seized in that capacity?"—the answer of Ghulam Hussain Khan, the Muslim historian, was—"The emperor is not so far lord of the soil as to be able to sell or otherwise dispose of it at his mere will and pleasure. The emperor is proprietor of the revenue, but he is not proprietor of the soil. Hence it is, when he grants, *aymes*, *altumghas*, and *jageers*, he only transfers *the revenue* from himself to the grantee." In the year 1715 the East India Company made an application to the Emperor Farrukhsiyar for a *talukdari* of certain villages for an annual payment. The Company's request was granted in 1717, but the Emperor's orders

said "Let them (the Company) make the purchase from the owners, and then let our Revenue Minister release it" (Briggs, p. 134). Islamic law recognises, without the least manner of doubt, the full right of the *Milli* (the Faithful) and of the *Zimmi* (those not of the Faith and living under the protection of Muslim rulers as their subjects). Muslim jurists have never shown subservience to rulers of their own faith, however powerful they might be. The author must know from his study of Barni's chronicle what independence of character was shown by Qazi Mughis when the powerful Emperor, Alauddin Khalji, who cared little for Islamic law, asked him to answer certain questions (Barni, pp. 291–295). So much for Islamic theory. As regards practice, one would like the author to produce evidence from the chronicles, which might establish the fact that Muslim rulers, however despotic, abolished this right of private property in land. The only differences which the author detects between the Hindu and the Muslim systems are that the Muslims based their demand on the profits of cultivation, while the Hindu system fixed the demand at a fraction of the total gross produce; and that the Hindu scale was uniform, while the Muslim scales were differential, and made allowances for variations in cropping, sources of irrigation, and the higher costs of production. These deductions and allowances constituted the only relieving features of the Muslim system.

The author says that the agrarian system in operation in the fourteenth century was in its essential features in harmony with the law of Islam, and also with the sacred law of Hinduism. The new rulers had little more to do than to give Persian or Arabic names to the institutions which they found already in existence. The share of the produce taken by the Muslim rulers was generally one-third, though a strong ruler like Allauddin Khalji might go even to a half, from political considerations. Over large parts of the country south of the Narbada, the share was a quarter. The author is of opinion that nothing was done to ameliorate the condition of the peasantry, and that when the Moghul Empire finally broke up, a legacy of loss was left to their successors. It is hardly fair to judge the administrative achievements and efficiency of all Muslim rulers by the period of anarchy which followed, and was closed by, the consolidation of British rule in India.

The author's assertion that nothing was done to improve the condition of the peasantry is not supported by the full, clear, and decisive evidence of the chroniclers from whom he has gathered his materials. Take, for instance, the development of agriculture

and the improvement of cropping. Large sums of money must have been spent by the State on the excavation of canals and development of agriculture. There are few countries the annals of which show that improvement of agriculture had become a definite aim of State policy in the early part of the fourteenth century, as was the case during the reign of Muhammad Tughlak, but the author dismisses the account given by Barni as *magniloquent*. Thinly veiled, there appears the professional jealousy of a bureaucrat of the twentieth century when he comes across the startling idea of agricultural improvement carried on by enlightened oriental despots. Why should the picture of Meerut and Bulandshehr as a country of vines and date-palms and wheat and sugar-cane raise a sneer of contempt? Barni was an official. He was a native of Bulandshehr, and knew what he was writing about. But the author is of opinion that Barni was in his dotage. How is he going to dispose of Shams Afif, who was a bureaucrat, a chronicler and understood agrarian matters? The account that Shams Afif gives on pp. 293–296 of his chronicle is too circumstantial to be disposed of by the reader as the fantasy of an imaginative oriental. The chronicler records that by the king's exertions " twelve hundred gardens were established in the environs of Delhi. In every garden grapes of every variety grew. Similarly, there were in every garden fruits of different varieties. The revenue derived by the Treasury from garden produce was 1,80,000 *tankas*, excluding the shares which was the property of the gardeners. The revenue of the country between the two rivers was 80 lakhs of *tankas* in those days." The author does not realise the significance of the efforts made by all Muslim Kings to extend the area under cultivation. They wanted an increase in revenue, and were not likely to inflict injury on themselves by bringing about a reduction in area under the plough. The views of the early Muslim kings regarding land revenue may be illustrated from the advice given by Balban to his son Mahmud, to whom he made over the province of Bengal. " My first advice to you is that you should not make any unreasonable demands on the people. You should follow the practice of the former rulers in imposing new demands, and you should not introduce new rules and regulations of your own, and you should deal with the people in such a way that they find it neither all too easy nor all too hard, and, in the same way, in the levy of land revenue, you should follow the rule of the golden mean. Not so much should be levied that the people become helpless and not so little that they should become rebellious through affluence " (Barni, p. 100).

Moreland remarks (p. 65) that the provision of State irrigation was undertaken only by Firuz, but he omits to mention what was done by Ghiasudin Tughlak, of whom Barni speaks in the following terms on p. 442 of his chronicle : " All the energy and efforts of Tughlak Shah were directed to no other task but of causing the excavation of far-reaching canals, bringing verdure to exquisite gardens, the building of fortresses, the provision of agricultural facilities for the people generally, the cultivation of waste land and bringing into life the dead lands, and lands, the cultivation of which had become unprofitable." Moreland's statement that the welfare of the people was not kept at heart by the kings, is disproved by the clear evidence scattered here and there throughout the chronicles on which he relies. An instance may be given out of the chronicle of Shams Afif, Chapter XVIII, p. 98: " It is related that His Majesty the Emperor Firuz Shah, through the inspiration and help of God, made high endeavour in advancing the welfare of his subjects according to the obligation of kingship. In this work he toiled incessantly. . . . In the houses of the subjects there was so much corn, property, horses, effects, that one could not count them. Every person had much gold and silver, and abundant household goods. No woman was without apparel. In the house of every subject there were fine bedclothes, good bedsteads, much property and many commodities and every person had abundance of goods." Compare also the references to arts and crafts, and the improvement of agriculture (*Chronicle*, pp. 436 and 569).

Another illustration of Mr. Moreland's methods may be given from his account of the torture of officials, whether high or low. From his account it would appear that torture was the usual means of effecting recoveries of dues from the humblest to the highest official. The passage of Barni (p. 288) would not support Moreland that payment of the balances was enforced by torture. Ghiasudin's orders about Governors referred to disrespect, and not to torture. Instructions of Firuz are about the minor officials, who made the life of the peasantry burdensome by their exactions. The passage in the chronicle of Shams Afif (pp. 337–343) is clear about the procedure, and leaves not the slightest doubt about the methods adopted by the audit department in checking the accounts of the spending departments and of the realisations of the revenue department. There is no mention there of any disrespect, rudeness, severity, and much less of torture. As regards the instance given by Moreland on p. 43 of his book, the account given by Shams Afif on pp. 451–501 is explicit. The

chapters relate to the activities of the Controller of Accounts, Malik Shams-ud-Din Abaurja, a cantankerous official, who made matters difficult wherever he went by his outward honesty and straightness of conduct. He was relieved of his charge as Deputy-Governor of Samana, and was sent to Gujerat, where he was appointed *Mastaufi*, Controller-General of Accounts (p. 464 of Shams Afif) by the King. At first he worked hard, but, finding the road clear, he took bribes, and did not withdraw "the grasping hand of bribery as he lengthened the tongue of criticism." He was certainly tortured. But it was for bribery, and not for recovery of dues. If the author had shown more regard for evidence, he would have noticed on pp. 432 and 433 of the chronicle of Shams Afif what the correct procedure was. If any one committed defalcations, the King's step-brother would ask his officers to pull down the turban of the delinquent, and by so disgracing a man who kept for himself what he collected, he gave every one to understand that, the turban being the symbol of honour, such a man had lost honour.

Another instance which may be given of the author's method relates to his account of the expulsion of the Portuguese from Bengal during the reign of Shah Jehan. The author has misread the passage in the Badshahnama, and just by reading the enclitic, where none such exists, he has come to some surprising conclusions. Moreland speaks of colonisation, of the development of agriculture, and the settlement of a Christian tenantry round about Hoogly. The facts of the matter are that there was no colonisation, no settlement and no development of agriculture. By attaching the enclitic to the first word in "Nasara Ijaradaran," he makes it appear that the Portuguese had settled Christian tenants on the land. Without reading the enclitic, the correct rendering of the King's orders is to "send the Christians—namely, the Portuguese—to hell," and not the Christian tenants of the Portuguese, who were non-existent.

Moreland's reference to the acquisition by Firuz Shah of male slaves 180,000 in number comes very near *suppressio veri et suggestio falsi*. A translation of the whole chapter—pp. 267–273 of Shams Afif—would enable every one to judge whether these slaves formed a commodity and what position was allotted to this commodity in the scheme of social life of those days.

From the examples given above, one can form an idea of the methods followed by the author in taking out bits from here and there to illustrate a point which he may have in mind. The connected narrative, on the other hand, would go

to prove just the reverse of the point which the author may be making.

The author has misunderstood the plain meaning of many terms and has built on such misunderstandings theories of his own. Take, for example, the word *raiyat*. By it he means the peasants. But the word *raiyat* in Arabic and in the mouths of Muslims in India has uniformly meant the subjects, and never "a herd" either of "animals or of peasants." Again, Mr. Moreland says that the word *Mālik* originally denoted a king, and has built on this incorrect understanding of a plain term a whole complex of ideas about ownership of land. He has confused the word *Mālik* with *Malik*, meaning a king, and *Malak*, meaning an angel. The latter two words are derived from different roots and have different meanings.

The author is not just to Barni, whose account of the reign of Firuz Shah is well-balanced and brings out the good as well as the bad points of this king. The chronicler himself says that he considers truth as one of the conditions attaching to the duties of a chronicler, and that he has made it his aim to give a true account of events, irrespective of his personal feeling, whether he is successful or unsuccessful in life. Mr. Moreland makes a mistake on p. 50 when he refers to Muhammad Tughlak being called to the Deccan. Barni, on p. 499 of his chronicle, says that he had been called to Thatha in Sind, where he died. The reviewer has re-read in the *Maasir-ul-Umara* the biographical account of Murshid Kuli Khan, a great administrator of the Deccan. The language is distinguished by its simplicity and terseness, and it is difficult to understand where rhetorical exaggeration comes in (Moreland, p. 186).

In conclusion it may be remarked that the author has asked of the Past something more than the very Past itself.

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Problems of the Japanese Exchange, 1914–1926. By JUNNOSUKE INOUYE. English Version by E. H. DE BUNSEN. (Macmillan. 1931. Pp. xxii + 263. 10*s*. 6*d*.)

Food Supply and Raw Materials in Japan. By E. F. PENROSE. (University of Chicago Press. 1930. Pp. 75. 9*s*.)

Survey of American Foreign Relations. By CHARLES P. HOWLAND. (Oxford University Press. 1930. Pp. xvii + 541. 24*s*.)

EXPERT studies in European languages of the financial structure of Japan are hard to come by, and this account of Japanese exchange problems during a very interesting period is to be welcomed, especially as it is the work of a distinguished financial administrator. The author begins by showing how in pre-War years the steady depletion of the exchange funds which the Bank of Japan had accumulated abroad was threatening the maintenance of gold parity, and he goes on to describe how the situation was transformed by the great increase in Japan's export trade after 1914. The circumstances of the time led to an enormous growth in the foreign balances of the Bank of Japan and of the Government, and Mr. Inouye explains that, since it was not found possible to convert these into long-term investments, they came to form the basis of the greatly expanded note-issue. With the coming of the world depression in 1920 Japan began to employ these foreign holdings to maintain exchange at dollar parity, and as deflation was not carried as far in Japan as in America, a considerable divergence developed between the internal and the external value of the yen. The earthquake of 1923 necessitated the importation of great quantities of reconstruction materials which exhausted the exchange funds, and Japan, in consequence, had to allow the external value of its currency to depreciate to the level of its internal value. During 1925–26 there was a partial recovery of the yen which Mr. Inouye attributes to speculative buying on the part of Chinese and Americans in anticipation of a removal of the embargo on the Bank of Japan's gold reserves. It might also have been pointed out that a deflationary movement was then in progress which was leading to a rise in the internal value of the currency. Unfortunately Mr. Inouye's account does not go beyond 1926, and so he has been unable to deal with the financial crisis of 1927, a symptom of the deflation, and with the circumstances leading to the restoration of the gold standard in 1930. He has much of interest to say concerning the relations between the exchange banks and the Bank of Japan, and with the immediate effects of the introduction of the Bank Acceptance into Japan in 1919. He does not, however, discuss the subsequent influence of this on the financial system, and so does not add to the information on this point which is already available elsewhere; for example, in Odate's work, *Japan's Financial Relations with the United States.*

Mr. Inouye's book as a whole can scarcely be said to break fresh ground. The main outline of the developments which he describes are already well known; but his study is valuable in

filling in details drawn from his own wide experience of Japanese finance. English economists who have been concerned about the "inelasticity" of our economic system in face of a falling price-level will be interested in the analogy which the author draws between the circumstances of the British coal export trade since the restoration of the gold standard in 1925 and those of Japan's silk export trade at the time of the rise of the dollar-yen exchange during the speculative movement of 1925–26.

The book has several defects. It consists of lectures delivered to Japanese University students, and this method of presentation has serious disadvantages in a translation expressly intended for a foreign expert public. For example, discussion of elementary principles of exchange and currency could have been dispensed with; while the book would have gained from a brief exposition of the peculiarities of Japan's banking system. Without some acquaintance with these, Western readers will be unable to appreciate fully the problems with which the book is concerned. Mr. de Bunsen in his preface scarcely supplies this want. He describes how the Japanese banking system was built up of groups of banks each with highly specialised functions, and he declares that this specialisation has enabled the Bank of Japan to exercise a beneficial control over every department of economic life. Actually it has been found time and again that the Bank of Japan has been incapable of fulfilling the main task of a central bank, viz. the control of credit policy; while the specialisation of function, as Mr. Inouye shows, resulted in the funds of the domestic commercial banks being unavailable for exchange purposes during the period of rapidly increasing exports from 1914 to 1919.

Many parts of Mr. Inouye's book are unscientific in treatment. He does not mention, either expressly or by implication, the concept of purchasing power parity, and his account of the divergence between the internal and the external values of the yen after 1920 would have gained greatly in clarity and exactness had he done so. There is much categorical statement instead of argument and analysis, and there are many loose expressions. The author frequently uses the terms "artificial" and "natural" as applied to the exchange value of the yen without defining his meaning. He has much about the "transgression of economic laws." At times he seems uncertain concerning the elementary principles of international trade, and the frequent variations on his statement "Japan is inherently an excess importer" throw no light on the problem of her balance of indebtedness. On p. 101

he and his translator are guilty of the following: "The mechanism of economics is intricate and should be inviolable—and if you tamper with it, it will grind you exceeding small."

Mr. Penrose's little book is one of the most useful contributions to the economic literature on Japan that has appeared for many years. It is almost entirely statistical in character, and his figures, which deal with population, food imports and agricultural and mineral production, cover the period from 1894 to 1927. The author is justified in his claim that, in the fields covered, his book contains the most extensive collection of figures to be found in any one book in any language, and those who are familiar with the difficulty of obtaining reliable statistics concerning Japan must admire the patience and skill with which he has done his work. In order to convert his figures into useful instruments for economists, Mr. Penrose has constructed indexes of the physical volume of production of food-stuffs, industrial crops and minerals. In Chapter III he describes the sources of his statistics and the methods used in constructing the indexes in a way which inspires confidence as to the soundness of his results.

The author has his eye on the population problem which is engaging so much attention both among Japanese and among Western observers in Japan, and he has many shrewd comments to make on the opinions which are popularly expressed on this subject. He is well aware, too, of the limitations of statistical analysis in providing definite conclusions, and he recognises that other factors besides economic ones must be taken into account in a consideration of population questions. He says, for example: "A Japanese in poor circumstances will eat a considerable amount of barley; if his income increases he will substitute rice for barley. Yet food chemists have shown that rice is inferior to barley in protein content and, having regard to Japanese diet as a whole, it would be better if Japanese people consumed more barley and less rice. . . . So far as increased income is used for substituting rice for barley it actually diminishes welfare."

In the last chapter he deals with several controversial topics on which his statistics throw light, and here the necessity for brevity forces him to over-simplify some of his conclusions. For instance, he advocates the abolition of the Japanese duties on imported food-stuffs on the ground that these are hindering industrial expansion, and he thinks that Japan must pass through the same stage of development in the present century as Great Britain passed in the nineteenth century. On a broad view

this is no doubt true; but the situation of contemporary Japan presents greater complications than did that of this country during the 'forties of last century, and the analogy is scarcely justified. It must be remembered that the bulk of Japan's rural population consists of peasants, and for social reasons it is doubtful if the country will be willing to sacrifice this class in the interests of industrial expansion. This is particularly the case, since the rearing of silkworms, the basis of Japan's chief export trade, is essentially a peasant industry. It is not easy to foresee how the price and output of raw silk would be affected if the production of food-stuffs, from which the peasant derives the major part of his income, were exposed to unrestricted competition from abroad. Such a policy would certainly involve a redistribution of the economic activities of the nation which would place a great strain on its powers of adjustment.

The *Survey of American Foreign Relations* is the third of a series of annual publications which have been prepared under the direction of the Council on Foreign Relations, and this volume (for 1930) is concerned mainly with the dealings of the United States with the Far East. It is a well-written and scholarly study and is of far wider interest than its title suggests; for it includes within its scope an examination of the recent political and economic development of Japan and China and of the trading and diplomatic relations of the leading Western Powers with those countries. The sordid story of the political relations of Europe and America, and of their apt pupil Japan, with China and with the yet more unfortunate Korea, is here adequately and succinctly told. It must leave the reader, whether Englishman or American, with little pride in the contribution of his civilisation to Oriental well-being.

The chapters likely to be of greatest value to readers of this JOURNAL consist of those on Economic Relations and on Migration in the Pacific Area. The account of the successful merchandising methods of the Americans in the Chinese market (especially in connection with oil and tobacco) is of special interest to British economists and business men at the present moment, and it gives point to the recent criticisms of our marketing methods in the Far East. This is only one of the many important economic topics which are discussed in this admirable book.

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Japan's Economic Position. By JOHN E. ORCHARD. (London: McGraw-Hill. 1930. Pp. 489. 25*s*.)

THE chief merit of this book is that it proves the popular belief, that Japan is one of the foremost of industrial nations, to be false. This overshadows the excellent account of the condition of Japan when finally thrown open to foreign influences, and of the results of these influences, and the less interesting but worthy description of the chief industrial districts.

The population of Japan has risen rapidly since the end of the period of seclusion, and is increasing at the rate of nearly a million a year. In order to provide additional rice, new areas have been turned into paddy-fields, and other crops, notably cotton and beans, have been supplanted, while the average yield of the fields has been increased by about 50 per cent., so that even with the present population only about 10 per cent. of the food required is imported. The standard of living has improved and is still improving, so that increases in the *per capita* consumption of rice, wheat, fish, meat and sugar have occurred, but the diet has not yet changed fundamentally. The demand for rice is so great that there is no room for expansion in the production of agricultural raw materials of industry, or for the expansion of industrial areas. Every increase in population and every improvement in the standard of living results in new imports of food, and the only possible solutions of Japan's greatest problem seem to be: (1) a radical change of diet, which is unlikely to take place except very slowly; (2) a great increase in manufacture for export, which is difficult on account of the lack of raw materials, of industrial efficiency, and of suitable markets; (3) emigration, but there are no particularly suitable outlets; (4) birth control, which was strongly condemned until recently and which is not yet encouraged.

Industrial development in Japan, although fostered by the Government by tariffs and subsidies, has been slow, and in many cases has been nothing but an adaptation of old methods. In no case has Mr. Orchard been able to report any new processes; the Japanese imitate, but have no real mechanical skill or inventiveness. Domestic industries persist to such an extent that of those engaged in manufacture, 60 per cent. work in establishments with less than five workers. Further, a shortage of raw materials (particularly of iron and coking coal) and of capital contributes to put industry in Japan at a disadvantage. The fact that farmers carry on small-scale industries results in long hours and

poor wages in factories doing similar work. Even the large manufacturers are coming but slowly to the opinion that efficient machinery and well-paid labour are essential for successful competition in foreign markets, and there has been vigorous repression of labour unions.

In foreign trade Japan is in a precarious position. Reeled silk accounts for over 35 per cent. of the exports, and there is the possibility of competition from China or the substitution of artificial silk ruining this trade, which is almost entirely with U.S.A. Almost as important is the export of cotton goods, in which there is strong competition from other countries, while the growth of the cotton industry in China is taking away part of the best market and may eventually result in Chinese competition in other markets.

The outlook appears dismal, and Mr. Orchard considers a close association with China to be of vital importance. Japan can obtain some iron ore, coal, cotton and other raw materials from China, and can also find there the largest available market for manufactured goods. Unfortunately, in efforts to ensure the supply of these raw materials and in seeking political prestige Japan has antagonised China and has imperilled both the supplies and the export market. In railways and mining, in the building of factories and in banking in China, Japan has sunk, and in some cases lost, a great deal of capital, while home industries have been starved for want of it. The factories operated by Japanese in China do not provide an outlet for population, but compete with similar factories in Japan.

The examination of other sources of raw materials and of other markets for manufactured goods is exhaustive, and may give a little hope to Japanese readers. C. A. ASHLEY

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The Influence of Communications Internal and External upon the Economic Future of China. By MING-JU CHENG. (London : George Routledge & Sons. 1930. Pp. 173. 7*s.* 6*d.*)

THE title of this book, long though it is, fails to convey any idea of the comprehensive nature of Mr. Cheng's work; it is doubtful whether the book would have suffered if he had kept more closely to the subject-matter suggested by the title. There can be no doubt that internal communications in China have had, and will have, a dominant influence on the economic, political and social life of the country, and Mr. Cheng shows very clearly how great is

the need for better internal transport facilities. He then examines in turn the history and present-day condition of railway, water and air transport, and of post and telegraphic services. He also deals with the probable effects of improved transport on agriculture and on industry and trade. There is a map at the end of the book, which could easily be much improved by omitting provincial boundaries and including more of the places mentioned in the text. The book appears to have been published at the end of 1930, but it was written largely in 1928. Some of the material is naturally out of date, and 1928 was an unfortunate year to choose for any study involving the use of statistics from China. That accurate statistics are difficult to obtain is shown by figures, given on successive pages (144 and 145), in comparing the yield of rice in China and U.S.A.

Yield of Rice per acre, in bushels:	China 1,750
	U.S.A. 1,262
Harvest per hectare, in 100 kilos:	U.S.A. 20·08
	China 13·33.

Fortunately, the main thesis requires no accurate statistics to carry conviction.

There can be no doubt that the standard of living of all but the upper classes is very low, and Mr. Cheng shows how heavy is the burden of transport charges on food and raw materials, and on manufactured goods, in a country where human labour is probably still responsible for more movement of goods than is any other single agency. In spite of intensive cultivation, the country does not produce sufficient food-stuffs for its enormous population; the yield can be increased only by the use of machinery and fertilisers, and their economical use depends on cheap transport. Almost every year there is a famine in one part or another of China, resulting in tremendous suffering and loss of life; the only way of preventing these famines is by establishing rapid and widespread transport facilities. The raw materials of China (particularly coal and iron) can be utilised economically on a large scale only when cheap transport is available. The political unification of the country is also absolutely dependent on rapid transport, and in its turn has a vast influence on each of the other problems.

Mr. Cheng is anxious that China should profit by the experience of the West, and plan its transport so that useless competition is avoided, and all the services are co-ordinated. The Yangtse-Kiang is already one of the finest natural transport routes of the

world, and, apparently, a little work between Ichang and Chungking would make it a rapid and cheap connection between Szechwan and the ocean ports, although Mr. Cheng thinks a railway necessary for this purpose. The need for new railways is most pressing, for it is by this means only that certain very large areas of dense population can be tapped. It has been proved conclusively that railways in China can, in times of peace, earn handsome returns on capital, and it is unfortunate that practically no construction is going on now. The best recent work in developing transport has been in roads, but it is doubtful whether the present roads are superior in character or mileage to those existent a thousand years before the birth of Christ. It is surprising to find that at a distance of forty miles out of Shanghai roads cease, and the only method of land transport is by wheelbarrow or carrying coolie. Other cities have much longer roads connecting them with the country and with other cities, and there is a large number of motor bus routes, particularly in the north. Mr. Cheng is doubtless quite right when he writes, "Thus, for the time being at least, motor vehicles will play a more important rôle in economic development in China than elsewhere." (British Motor Trade papers please copy !)

Mr. Cheng gives the impression that, with the aid of foreign capital, and a complete cessation of foreign "interference," China will shortly be supplied with a splendid network of communications, and will leap forward as an industrial nation. A comparison between the Whangpoo Conservancy Board (which, under foreign management and independent of politics, has enabled Shanghai to become one of the largest ports in the world) and the Harbour Authority at Tsingtao (which, in the name of nationalism, has allowed a splendid piece of German engineering and organisation to decay), and between the South Manchurian Railway (flourishing under Japanese control) and the China Merchants' Steam Navigation Co. (practically bankrupt under close Government supervision) should have been sufficient to persuade him that foreign control is still necessary to attract foreign capital, and to have prevented him from suggesting that, within any short time, the coastal trade of China should be denied to foreign vessels. Working along those lines, famines will persist, and his dreams will remain dreams. The time of concession seizing is past, and there is nothing derogatory in foreign capital and control being hand-in-hand in China any more than in, say, South America.

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Agricultural Russia on the Eve of the Revolution. By G. PAVLOVSKY, Ph.D. (George Routledge & Sons, Ltd. 1930. Pp. viii + 340. 15*s*.)

THE last decades of our epoch witnessed considerable changes in landownership, agriculture and land distribution over nearly the whole of Europe. But, possibly, nowhere was this evolution more striking as to its shape and to its economic and political aspects than in Russia.

Dr. Pavlovsky begins his work by reviewing the agricultural geography of the country and the conditions—prior to 1861—of the old Imperial patrimonial Russia. The landowning class was represented in the middle of last century by from 150,000 to 200,000 landed proprietors, small and large, distributed over the whole central and southern areas. This landed nobility and gentry, in possession of nearly the whole arable territory of the country, had at their disposal and services the manual force of the millions of peasants. Only the Northern provinces and Siberia (the State peasants) and territories of Cossacks and Nomads were legally free. The author discusses the subsequent State policy of gradually increasing transfer, since 1861—the year of the Emancipation of Serfs—and particularly after 1895, of nearly the whole area of arable land in Russia to the peasantry, and finishes with the complete disappearance of the former landowning class; it was completed by revolutionary methods in 1905 and 1918. Thus in fifty years' time Russia from a country of landlords and serfs was turned into a land of peasants only.

The transfer of the whole arable land to the peasants did not bring the country to a prosperous agricultural position. Nor has it created a satisfactory state of mind between the Russian peasantry and the now ruling communist class. With the recent Soviet policy of doing away with peasant's land tenure, and with the introduction of cultivation on principles of advanced communistic State farms, the tension between the peasantry and the Soviets assumed a particularly acute form. Local revolts in the country and lack of food and other commodities in towns were the immediate results. This unsound state of things naturally recalls the mind to the pre-revolutionary and pre-war situation of agriculture in Russia and reminds us of the years when Russia was the chief producer and exporter of cereals in the European market. Dr. Pavlovsky's book appears, therefore, at an opportune moment, since a sound and impartial research into the state of agriculture for the last half-century was much wanted.

After an exposition of the climatic and agricultural conditions of European Russia he describes the growing influence of capitalism and industrialisation on the purely patrimonial state of the country in the 'fifties and 'seventies of the nineteenth century. The Act of 1861 did not in his opinion affect the primitive conditions and extensive systems of farming, because the free labour on the market was not accompanied by the appearance of any "capital" in agriculture for at least twenty years. Thus it did not bring about any appreciable raise of yield, nor any progress in cultivation, nor sufficient employment for the excess of workers in the country-side. The very serious reasons for this, which Wallace has described in his *Russia*, could be formulated thus, that in 1861 the peasants, bound to pay in thirty-eight years to the Government the amount advanced to the landowners for the land they got from them, were not proclaimed individual proprietors, but either tenants of land in communities or individual tenants in some southern governments, whole villages being in both cases responsible for annual payments and taxes. Different reasons were advanced by supporters of the predominant system of communal tenure. The Government supposed that in this way they would avoid the creation of a much-feared "proletarian" class and maintain an easy system of levying taxes. The advanced politicians, on the other hand, were supporting the communal tenure under the presumption that under their guidance it would act as a check on the arbitrary Russian autocracy, and that there would be only one further step to the idealistic socialisation of rural Russia.

Dr. Pavlovsky's great merit is in keeping outside politics and limiting himself to purely technical questions of agriculture. He shows what were the awful agronomical results of the policy of supporting on political grounds the communal, we might say even "communistic" principles in Russian peasant agriculture.

The necessity and the natural desire of members of the commune to make ideally fair distributions and redistributions of allotments to each family caused the peasants—and this all over agricultural Russia—to acquire the habit of dividing first of all their three-field allotments into many "places," according to different values of the soil as well as to the proximity of its parts to the village itself; and next to decide in the village meeting on the division of the land, whether it had to be divided equally, on number of adult members and children of the village, that is, on "mouths," or on number of "souls," children counting as fractions. Each senior member of the family was to obtain in

each "place" parcels of land for a given number of "souls." Besides this, each peasant was bound to follow the rotation of crops of his villagers. These "places" were sometimes very numerous and of varying degrees of agricultural value and might be close to or at a distance from the village. With the change of the village population or owing to other reasons the peasant was liable to lose his possession of those strips even at the next year's redistribution, and receive other strips in exchange.

Dr. Pavlovsky produces figures to show that a huge area of over twelve millions of acres passed to the peasantry from the gentry between 1895 and 1905—manor houses, parks, gardens being as a general rule simply destroyed and every square foot converted into farming land, but with no advantage to the national output. The agrarian troubles of 1903–6 in nearly all parts of Russia and the aggressive attitude of the peasants towards the remaining estates and holdings of non-peasant type, showed that the evil of land scarcity must be fought by other means. The years 1905–6, years of generally great reforms in Russia, including the introduction of the seeds of a Parliamentary system, witnessed the introduction of a new and extremely important policy. This was the policy of allowing the peasants to separate from the commune and become small independent farm-owners. This policy is identified with the names of distinguished Russian statesmen of the reign of Nicholas II—Stolypin, Krivoshein and Gurko. This policy was supported by three movements. First, the newly-reorganised Peasant Bank of 1905 gave facilities for a further transfer of the lands from the gentry to peasants individually, either in the form of a single piece of land or of a farm, the peasant living on his land. This policy of "enclosures" and "group enclosures" was followed by a new right given to each individual peasant to compel the community to grant him in freehold his legal portion in the communal land. Finally, there followed an energetic policy of State assistance for emigration to fertile portions of Siberia.

Dr. Pavlovsky produces final figures of this new policy of Stolypin. He shows that still more millions of acres were transferred into individual holdings, making with previous transfers from 1883 to 1912 the huge area of 43 millions of acres, or more than the total area of England and Wales. About one-tenth of the peasantry had abandoned the villages and the "obschina"; hundreds of thousands of peasants were finding every year their new homes in fertile Siberia.

The agrarian reforms have coincided with the general upheaval

of Russian productivity in all new branches of economics; railways, mining, banking. Exports were growing every year; peasantry, particularly on individual farms, were increasing their prosperity at an incredible rate. That was the promising aspect of Russian and financial economic affairs at the time the Great War broke out.

The few last pages of the book still show that the whole agricultural structure of Russia, so ably described by Dr. Pavlovsky, was unfortunately not strong enough to withstand the burdens which the Great War imposed on the resources of a nation. Those who suffered from "land hunger" and were living still in communities—nine-tenths of the peasantry—were the first to support the coming revolution, based on the slogans "Down with the war," "The whole land to the peasants."

The small minority of enterprising strong individual farmers had to submit to the pooling of their holdings and could not actively support the land proprietors nor oppose the revolution at its start. After the landed gentry, they were the first to experience, under the name of "kulakis," the ordeal of being expropriated by the communistic government. Finally came the recent policy of expropriating the "non-kulakis" as well and dragging them into communist farms. What was started as a sound agrarian policy came to a tragic end.

As regards the organisation and conditions of farming in Russia, and Russia's agricultural production before the War, Dr. Pavlovsky's book will probably become a standard work.

P. SCHILOVSKY

Economic Prosperity in the British Empire. By STEPHEN LEACOCK. (London: Constable & Co. 1930. Pp. 246.)

THIS book outlines in lucid, orderly and vigorous fashion a method by which, in its author's opinion, the Empire can "integrate" itself and function as a single economic unit, with equal advantage to the Dominions and the mother country. Many writers have theorised on the same problem before, but not on Mr. Leacock's large lines and seldom with equal conviction and confidence of success. He admits that complete economic union, involving free trade within the Empire, is now impossible and is probably undesirable, since nearly all the Dominions have developed their economic life on the industrial side, and have now large urban populations dependent upon manufactures of various kinds. What he contends the Empire might and should do is to mobilise its capital and credit with a view to using both in the development

of its vast natural resources, in filling up its equally vast empty spaces, and in reciprocal trading on the basis of scientifically planned systems of protection and preference. He develops his argument with considerable ingenuity and the enthusiasm of a warm-hearted imperialist of the best type who sees that all is not well with the Empire and wants a speedy "move-on." Unlike many oversea advocates of preference, too, he is as much concerned for the prosperity of Great Britain as for that of the Dominions.

His case for a grandiose scheme of Empire development is based on the fact that (to adapt a familiar quip of fifty years ago) "we've got the land, we've got the men, we've got the money too." The wealth of the Empire in habitable land and in raw materials, such as coal, iron, gold, timber, etc., is unique, while its corn-growing capacity and its water-power are practically unlimited. Here are the foundations for all the economic expansion we need wish for. The first want of the Dominions is population, though they do not seem to have grasped the fact. Comparing the area in Canada which is similar in point of climate and resources to the countries around the North and Baltic Seas, he comes to the conclusion that that Dominion alone can take 250 million inhabitants, instead of the present nine millions. Making the same comparison between Australian territory (excluding the "dead heart" at the centre) and countries on the Mediterranean seaboard, he estimates that it could accommodate an equally large population, whereas all Australia now contains only 6¼ millions, or under two to the square mile. Here alone is space for over 500 million immigrants to go on with. Compared with this figure the two millions of England's unemployed are to Mr. Leacock negligible, and he would absorb them at once by means of big commercial corporations of Empire adventurers which, favoured by trading privileges and grants of land, should both transport our workless families in large contingents oversea and put them to the employments most suited to their capacities and to the requirements of the Empire at large. Everything is to be done on sound business principles, and he has no doubt that these companies would in one time earn a fair return on the capital invested. For the Dominions are to be populated by people engaged in industry and agriculture equally. As he puts it, "Our migration must open its own market—the secret of it lies in that. It must be so varied and multiform that every part of it is the market for every other." The needs of the mother country having first been met, he would accept immigrants of other white races, always by a process of selection.

It is part of his scheme that the State debts of Great Britain and the Dominions and Colonies (India excluded) should be pooled—unified would be a better term—on agreed principles, not with a view to the relief of any one part of the Empire at the expense of the rest, for all countries would still bear the old liabilities, but in order that the existing loans might be repaid, and fresh money be borrowed simultaneously on the common guarantee at a lower rate of interest. He holds that "a lifting of general Empire credit by even one-half per cent. would effect a colossal saving of about sixty million pounds a year." Incidental points in his argument are the diversion of British capital from foreign to imperial undertakings and purposes, the imitation on a large scale throughout the Empire of standardisation in manufacture, the adoption within the Empire of uniform coinage, weights and measures on the decimal system, and not least the displacement of the American "moving picture," which now acts throughout the whole world as a magnificent advertising medium for U.S.A. and its products, by British films which shall do the same service for the Empire.

As to the promotion of inter-imperial trade, Mr. Leacock is a cheerful "whole-hogger" on the subject of protection. He recognises imperial free trade to be impracticable and he would not interfere with any of the "particular" tariffs of the Dominions and Colonies. Supplementing these, however, he proposes that there shall be imposed a new and general tariff for the entire Empire against the rest of the world, each autonomous territory to be free to raise, lower, alter or abolish this extra tariff just as it liked. This arrangement suggests a somewhat disintegrated sort of imperial integration, and it is not clear that it would be certain to benefit Great Britain unless, as Mr. Leacock may take for granted, the existing preferences as against the outside world were retained and even improved in her favour. His conclusion is highly optimistic. United, developed, populated and financed as he wishes to see it, the British Empire will in time throw the United States into the shade. Altogether this is a remarkably able, lively and stimulating book, written around a big idea. There is more of the imaginative and the picturesque in the style of writing than one usually expects in literature of this kind, but even if that feature should make for weakness it makes also for interest, and the sympathetic reader will not be likely to discard the good grain because something that looks suspiciously like chaff occasionally lies alongside of it.

W. H. DAWSON

Nationality within the British Commonwealth of Nations. By E. F. W. Gey Van Pittius. (London: P. S. King & Son, Ltd. 1930. Pp. xvi + 238. 10*s.*)

The object of this book is "to analyse critically British nationality in all its phases," and to indicate where a solution may be sought of the difficulties caused by distance and diversity of races within the Empire.

Part I deals with the natural-born British subject, whose legal position is comparatively simple. His nationality is unimpeachable, and he cannot in any circumstances be deprived of it. Political and civil rights, however, do not necessarily follow nationality: they are privileges which each part of the Empire settles for itself, and the Dominions are not deterred from discriminating against coloured persons by the fact that these may be natural-born British subjects.

Part II deals with the acquisition of British nationality by naturalisation, by annexation of territory and for women by marriage. The position as regards the Dominions is even now not quite satisfactory. A degree of uniformity has been attained "after persistent pitched battles fought in a hard but friendly atmosphere at the periodical Imperial Conferences." But even now a person naturalised in one of the Dominions may lose his nationality if he moves to another part of the Empire.

The questions of dual nationality and of statelessness are discussed in Part III. Great Britain adopts for its principle the *jus soli*, but weaves the *jus sanguinis* into the fabric, and difficulties arise both with regard to the children of foreigners born on British soil, and with second and third generation children of British extraction who are born abroad and registered in British Consulates. In such cases two countries claim the children either on military or on purely sentimental grounds. Certainly the British principle might be accused of seeking "to have it both ways."

If dual nationality is an unfortunate predicament—for a man may be claimed as a soldier or imprisoned as a deserter in either of his two countries—statelessness is a calamity. It can be brought about either by forcible denationalisation or in the case of women by marriage. Some states denationalise subjects who have absented themselves from their country for too long a period. The United Kingdom has since 1914 reserved the right to revoke naturalisation certificates on any one of a specified number of grounds. This may be a wise innovation, but it overlooks the fact that the victim has lost his former nationality, and that the

country of his origin may be unwilling to receive him. Mr. van Pittius holds that unless deportation is feasible the provision for revocation should be repealed or at least modified. One solution of the difficulty would be an international undertaking by every country not to refuse readmission to its own nationals.

The American Cable Act (1922) is responsible for cases of dual nationality and for cases of statelessness. An Englishwoman marrying an American loses her own nationality at home, but does not acquire her husband's in the United States. On the other hand, an American woman marrying an Englishman retains her American nationality in the United States, and becomes a British subject by the laws of the United Kingdom. The whole question of the nationality of married women bristles with difficulties. At present the position is that a woman automatically acquires the husband's nationality on marriage in all countries except the United States of America, the Argentine and Chili. But France, Belgium, Brazil, Russia, Roumania and Turkey allow her to choose between her husband's nationality and her own. Our law allows a woman to retain her British nationality if her husband, after marriage, naturalises elsewhere, or allows her to regain it if she has married a foreigner and war subsequently breaks out between his country and the United Kingdom. There are valid arguments either for allowing women freedom of choice or for forbidding it, but there is nothing to be said for a condition of affairs which may bring about statelessness, and it ought to be arranged, by international agreement, that a woman should not lose her nationality on marriage unless she acquires a new nationality and the legal protection of a new set of authorities.

The author claims that the study of the legislation of foreign countries necessary to the production of this volume has exacted much time and labour. Undeniably his material is ably put together, lucidly expounded and impartially criticised. It would, however, have added to the value of the book if the text of the Imperial Nationality Act 1914, which is repeatedly quoted, could have been incorporated in the form of an Appendix.

H. REYNARD

The Price of National Security. By H. E. HYDE. (London: P. S. King & Son, Ltd. 1930. Pp. xvii + 289.) 12*s.* 6*d.*

The Future of Empire. By WILLIAM HARBUTT DAWSON. (London: Williams and Norgate, Ltd. 1930. Pp. 285.) 12*s.* 6*d.*

MR. HYDE is a whole-hearted supporter of the League of Nations. He says all the obvious things about the League, and

says them over and over again, with a tendency to revert, in the middle of any argument, to a description of the horrors of modern warfare. The chapters are too short, and there are too many of them, but this does not mean that Mr. Hyde has not made a fair case for his subject. He gives a spirited account of the achievements of the League: its successes in stopping and averting wars, its humanitarian activities, the improvement it has brought about in the industrial conditions of backward countries, and finally its aid to financial reconstruction in post-war Europe. He indicates how much more might be done with courage and vision, and pleads for a Mutual Security Pact among the members of the League. Great Britain is already committed by the Covenant much farther than we realise, and has everything to gain by a definite pact. America has more excuse than Great Britain for seeking safety in isolation and aloofness, but she too would gain by joining the League, possibly in a modified form of Associateship.

The last two chapters of the book deal with the menace of Bolshevism, and the steps which Europe should take to protect herself against the Red Army. Anyone who wishes to hear all that can be said for the League, and who is not too exacting about the manner of telling, can be advised to read this book. But if his enthusiasm is not proof against split infinitives and a host of similar and worse offences, he must go elsewhere. One can genuinely commend Mr. Hyde's honesty of purpose, while wishing that he had chosen some medium other than written prose to convey his message to the public.

The Future of Empire, too, is mainly concerned with the peace of the world, but that is all that the two books have in common. Mr. Dawson's "Empire" differs from the common conception as a Bach Cantata differs from a collection of patriotic glees. It is not only that he detests the Jingo with a bitter hatred, he attacks the easy Imperialist with almost equal ferocity. The Empire has been created by conquest and annexation, the method of its acquisition has been haphazard and promiscuous, and only the voluntary assent of the population can keep it together. Hence Great Britain should withdraw from all points outside her rightful, because permanent spheres of influence, and the more thoroughly she does this the more will the Empire be strengthened and consolidated. Mr. Dawson claims Adam Smith and Sir John Seeley in support of his views, and implies that there is an optimum size of Empire beyond which every increase of territory is a liability rather than an asset. We have burdened ourselves needlessly and heedlessly with obligations that make for weakness

and drain away resources which are urgently needed at home. The boast: " See what useful work we are doing! Who would do it if we didn't?" is as idle as the plea of the necessary protection of " British interests," and Mr. Dawson exposes the weak places of both with the same ruthless logic.

Further, as a means of self-protection, he holds that we should denounce all treaties and agreements to maintain frontiers which do not adjoin our own territories. Continental relations are a danger spot: in particular, France, Poland and Serbia want everything from us and offer nothing in return. On the other hand, he would have us internationalise the Suez Canal, the Panama Canal, Gibraltar and the Dardanelles.

If Mr. Dawson finds little to approve in the fruits of our past adventures, he has nothing but unqualified condemnation for the Mandates bequeathed by the War. They are a Pandora's casket of future mischief, and each commitment leads to further hazards. Palestine might have given little trouble if she had been kept free of the political agitator, but Arabia will remain an enigma to the Western mind, and Iraq is a source of friction and weakness. Of the annexation of the German Colonies, excellent going concerns on which industry and treasure had been freely lavished, Mr. Dawson can barely trust himself to speak. The Allies were distributing Germany's Colonial territories among themselves in the early days of the War, before Mr. Asquith's " No annexations " had ceased ringing in their ears. Apart from all questions of honour and justice, the policy which hems in large industrial populations while denying them not only space but access to the raw materials essential to their existence is the gravest menace to the peace of the future.

In this welter of folly there are two quarters in which we can look for light and reason. The Dominions can help, and indeed will help, for they will not acquiesce in a policy which might drag them into war. And the Labour Party has already shown remarkable imagination and political insight in its attitude towards Egypt, Iraq and India. Mr. Dawson is not afraid of Labour even at home: for all their class bias and prejudice in favour of nationalisation, they know that they cannot hand over our industries to a bureaucracy which could not " run a street apple-barrow " with profit.

After a discussion of Disarmament and Arbitration, which will be no more palatable than the foregoing to the average Imperialist, the climax is reached in a chapter entitled, " What is wrong with the League of Nations?" The League is even now the greatest

single source of hope for the future of the world. But it will do for the cause of peace just as much as the constituent nations will require it to do, and no more. President Wilson's noble and inspiring conception was sabotaged by France at the outset, and the League emerged, a diplomatic body with scarce a trace of pure, democratic blood, a mere instrument to enable the Allies to protect their handiwork. Even so, though it means well, the League is, in effect, deplorably weak, flouted by the strong and truculent, alternatively protesting and withdrawing, a picture of pusillanimous impotence.

The book ends with an earnest appeal for a change of heart, addressed not to the vanquished, of whom it has long been demanded, but to the victors. The reader who is convinced by this exposition will find himself stripped of prejudices so ancient and traditional as to appear almost innate; humbled, yet with a higher conception of the meaning and purpose of Empire. Unfortunately it is to be feared that for the majority Mr. Dawson's strong meat will be too strong, and that those who have most to learn from this book will never read it. H. REYNARD

Mediæval Cheshire. By H. J. HEWITT. University of Manchester Economic History Series, No. VI. (published in co-operation with the Chetham Society). (Manchester University Press. 1929. pp. xxiv + 212. 21*s*.)

DR. HEWITT'S book is typical of the best products of the radical transformation in the study of local history during the last forty years. To-day local history is treated "as the basis of the intimate understanding of social change," and the history of a county or a township is therefore set against the background of economic, social and political developments in the outside world. This interplay has at last brought local history into its true place, and has simultaneously enabled it to make its long-delayed but vital contribution to the study of social and economic history proper. Dr. Hewitt's compact subject is distinguished by many interesting features, and is based on a foundation of local records possible only in the case of a palatinate which escheated early to the Crown. His sub-title—" an economic and social history of Cheshire in the reigns of the three Edwards "—limits him to the period in which mediæval Cheshire developed its most characteristic economic features and reached the height of its prosperity before the set-backs of the fifteenth century.

The land, agriculture, and the peasantry occupy half the book.

Forest, moorland, marsh and heath had long limited agriculture to less than half the surface of the county, and centuries of border warfare had made untenable the most fertile districts, and had wasted the energy and resources of the rest. Until Wales was conquered Cheshire inevitably remained undeveloped and scantily populated; but the later years of Edward I saw a real beginning in the clearing of forests and the draining of the Mersey marshes. Clearings were made and ploughed, and pits were dug for marl to fertilise the new gains. The practice of marling, first mentioned in Cheshire in 1239, and fairly common by 1270, was greatly extended in consequence of the clearing of forests. The Cheshire monks, especially the abbots of St. Werburgh's, were foremost in this work, but the lesser gentry and the peasantry soon copied their successful experiments. The administration did much to hinder the work by a rigorous enforcement of the obstructive forest law, but the officials of the Black Prince, in the eyre of 1347–58, exceeded all justice and reason in mulcting the progressive Cheshire landowners in order to finance the Prince's ruinous foreign wars and personal extravagance. They imposed fines ten to twenty times greater than any hitherto exacted for essarting; ancient custom, legal rights, and Earl Ranulf's Charter of 1215–16, granting freedom of essarting, were overridden, protests disregarded, and the feeble revolt provoked by this harshness in 1353 was quickly suppressed. The fines were exacted, and the Prince's selfish and short-sighted policy sharply checked the reclaiming of forest land. Yet Dr. Hewitt's account of the management of the Prince's Cheshire manors, the different resources of which were efficiently co-ordinated by officials of very wide experience, shows that the Prince's ministers could be progressive when their master profited directly thereby. The Prince's stud-farm at Macclesfield undertook systematic stock-fattening and breeding; it was carrying 527 head of cattle in 1357, and in any year up to 200 head might be brought there from the other Cheshire manors of the Prince and from North Wales. Horses, too, were bred there; in 1329 the keeper accounted for 63. As a whole, however, Cheshire had few cattle or sheep, and its wool-crop was small; but there were thousands of pigs in the forests, which, with the abundance of salt, made Cheshire a great bacon-producing county. These chapters contain much more that is of great interest—the size of estates, the number of stock, the methods of harvesting, the working of the great Dee corn-mills, the effect of the Black Death, the enforcement of the Statute of Labourers, the turbulence of the population—all illustrated with

a most valuable precision, especially in wages, labour costs, prices, and so on.

Transport, quarrying, and building receive the same detailed treatment; the building-accounts of the great abbey at Vale Royal, and the standing organisation for the repair and maintenance of the Prince's buildings provide some very interesting facts, and we have definite information on the state of roads and bridges. A valuable chapter on the "wiches" fully establishes the real, though limited importance of the Cheshire salt industry, which Thorold Rogers denied; we have a detailed description of the manufacturing processes, and of the substantial profits made by the Earl and by the numerous owners of salthouses in Northwich, Middlewich, and Nantwich. The salt was exported to all neighbouring counties, but unfortunately there is very little evidence of the selling organisation. The attractive subject of Chester city at the height of its prosperity is admirably handled. The geographical and political factors in its importance; the powerful influence of St. Werburgh's Abbey on the city's life; the sources of Chester's supplies; the direction and commodities of the trade of its port, and the causes of its decline in the fifteenth century; all these topics receive careful analysis. The rise of a small class of wealthy merchants, enriched from such different sources as the Dee mills, army contracts, the shipping of Irish corn, Gascon wine, and other commodities, and the speculative exploitation of Welsh timber and minerals, is clearly set out, and in the enterprising William of Doncaster we see a Chester Jacques Cœur in miniature.

The book, well-printed and attractively produced, is illustrated by five well-chosen plates and by three maps closely related to the text; there are two very full indices, the subject-index especially being a model for works of this kind. There is an elaborate descriptive bibliography; but it is a pity that Dr. Hewitt did not use the Exchequer (Treasury of Receipt) Book No. 144, since published as *The Black Prince's Register, Part I*, 1346–8. This compilation contains over 750 index-references to Cheshire affairs and men, which would have filled some of the gaps in Dr. Hewitt's evidence, solving such difficulties as the reality of Sir Richard Stafford's position as "steward of all the Prince's lands."

Only the more peculiar of Dr. Hewitt's findings are mentioned here: in addition, the profusion of exact, often statistical, information on ordinary matters will provide most useful material for wider generalisation in national economic history—indeed, Dr. Hewitt himself might occasionally have pressed his deductions

further. So workmanlike and thorough is the book as a whole, that we can only hope that many other writers will copy its example and method, for it is on work such as this that the rewriting of our economic and social history will depend.

R. F. TREHARNE

Pellegrino Rossi: l'homme et l'économiste, 1787–1848. By LÁSZLÓ LEDERMANN. (Paris: Recueil Sirey, 1929. Pp. 376.)

"WHO now reads Rossi?"—if one may adapt a celebrated phrase. At best he is mentioned casually among those who also wrote, among those who as economists gave a reasonably orthodox statement of the orthodox political economy of their age. Nor perhaps, strictly and objectively viewed, does Rossi call for any greater notice in a discussion of the development of economic doctrine. Yet Mr. Ledermann's most interesting volume, inspired by a pleasing piety to do justice to the dead, compels a certain revision of judgment. Not that a perusal of this critical biography will send many readers back to Rossi's *Cours d'Économie Politique*. Mr. Ledermann, in the second part, deals extensively with Rossi as an economist, and contrives to invest with interest a somewhat faded aspect of economic thought; but most of us will be content to accept Mr. Ledermann, without piercing beyond him to Rossi himself. But in the biographical part of his dissertation, devoted to "Rossi, the man," Mr. Ledermann has a story to tell which is not merely fascinating in itself, but which arouses a feeling of admiration for Rossi, and a questioning wonder as to what he might have been had his lot been thrown in a different environment. Rossi may not have been exactly a great or original economist; but, even guarding against hyperbole, he was potentially one of the greatest men who have ever filled an economist's chair, even though in his case it was merely one occupation among many. One who had seen him at close quarters, and who also knew Guizot, Thiers, Gladstone, Disraeli and the other leading men of his time, did not hesitate to pay to Rossi this admiring tribute:—

"Sans faire tort à ces noms illustres, je dois dire que M. Rossi est le seul qui m'ait laissé l'impression de ce que pouvait être un grand homme: cette union de l'intelligence et de la volonté qui caractérise dans l'histoire tous ceux à qui la postérité a donné le nom de grand, ne m'a jamais paru aussi pleinement réalisée que chez M. Rossi."

Here perhaps we have the key to the riddle of Rossi. In his extraordinary versatility, his combination of intellectual power

and determination of will, he was primarily a statesman and a man of affairs; and his remarkable gifts of eloquence, which even a foreign accent could not stifle, completed the equipment necessary to make him a natural leader of men. Yet the successive stages on which Rossi contrived to play a part were shifting and unstable erections—or at least so he found them; and the consequence is that Rossi's life, a continuous tale of fresh beginnings, reads like the product of a too-fertile imagination, which has no regard for the probabilities of life. Rossi, in his life-time, was a citizen of four different states. In all four, with a constant urge from the academic to the practical, he played a leading part. Nearly always fate was against him; and he died, in the end, at the hands of a common assassin.

It would be out of place here to seek to condense into a paragraph the biography to which Mr. Ledermann devotes half his book; yet perhaps a slight indication of the almost fantastic discontinuities in Rossi's life may be pardoned. An advocate of consummate brilliancy, he became Professor of Civil Institutes at Bologna at the age of twenty-seven, and might have remained there but for the irruption of Murat. Rossi was still young enough to be indiscreetly enthusiastic; and inspired by the premature dream of a United Italy, he threw in his lot with Murat, and became the "commissaire civil" for the area, thus being in effect and for a short time the governor of a considerable district. In the back-wash, Bologna was no place for Rossi, and he fled, contriving somehow to reach Geneva. His recovery at Geneva was perhaps the most remarkable tribute to Rossi's power; for later, he had at least reputation and fame on his side. But on his arrival at Geneva, he was young, comparatively unknown or—what is worse—suspect of revolutionary activities; his foreign accent was of the rawest. Yet in a short time, although a Catholic, he was admitted as a Professor; presently he was playing a leading part in the public affairs of Geneva, and in due course he was the moving spirit in the negotiations for a revision of the Swiss constitution, and the author of the "Pacte Rossi." When the "Pacte" failed to find acceptance (Rossi having also had financial misfortunes), Geneva was no longer so desirable a residence, and he transferred himself (in 1833) to France and the *Collège de France* in succession to J. B. Say. In France he became somewhat too much the official defender of the Government in his later position as Professor of Constitutional Law. In any case his rise, here as elsewhere, was phenomenal, and led him ultimately to his fourth sphere of activity as French Ambassador

at Rome. For when the Revolution of 1848 left Rossi high and dry in Rome, no longer accredited by the French Government, he elected to enter the service of the Pope, and was soon called upon to form a Ministry. Here Rossi was required to pursue an increasingly unpopular policy, which led to his assassination in 1848.

The *Cours d'Économie Politique,* which contains the bulk of Rossi's teaching on Economics, is a by-product of his French period. Mr. Ledermann adequately re-presents what Rossi has to say with sufficient citation of the more crucial passages. Rossi may perhaps be described as a representative of an orthodox eclecticism—a refined Ricardo, with the Ricardian pessimism mellowed if not eliminated. He would hardly have claimed to be an original force in economic thought; and it must, moreover, be remembered that Economics represented only one of the branches of knowledge on which he lectured and wrote. His *Traité de droit pénal* and his *Cours de droit constitutionnel* were in their time books of considerable significance. But in an age when it was obligatory on all who could do so to write a *Cours* or a *Traité* or a volume of *Principles*, Rossi did his duty, and produced a work which his contemporaries thought one of the best, and in which he makes many observations which are just, felicitous and discriminating. And what more can be reasonably asked of one whose buoyancy raised him to the top in the service of four different states, and whose writings were for the most part entrusted to a language which was originally alien to him?

The austere student may consider that the biography of Rossi has no economic value, and that his *Cours* would be amply rewarded by mention in a footnote. The wiser economist who mingles humanity with his economics—to whom the thinker is as interesting as the thought, and the writer no less important than the written word—will find Mr. Ledermann's an extremely interesting book. Rossi touched life at so many points, and moved about against such a shifting background, that much history in Italy, in Switzerland, in France and in Rome goes to his biography. In this very difficult task Mr. Ledermann has acquitted himself admirably. He supplies the history, without allowing it to swamp Rossi; and, despite an occasional tendency to fine writing, he has produced an intensely interesting account of what was a very astounding and, all things considered, a rather tragic career.

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Corporation Contributions to Organised Welfare Services. By PIERCE WILLIAMS and FREDERICK E. CROXTON. (National Bureau of Economic Research, New York, Publication No. 16. Pp. 347. 1930.)

THE problem with which this investigation is concerned is the basis of contributions of industrial, financial, mercantile and public service corporations in America to the organised philanthropic services in local communities in which philanthropic funds are raised through the medium of community chests. The community chest is an outgrowth of the pre-war Federation of Charity and Philanthropy and the War Chest instituted during the war for war-time charitable appeals; its method of raising funds is based "on the intensive community-wide method of money-raising perfected by the Y.M.C.A. between 1905 and 1916" (p. 13).

The significance of this study from the economic and social standpoint may be gathered from the following statement in the Introduction: "In both its economic and social life the American community has undergone profound transformation during the last two decades. On the economic side is to be noted the disappearance of the individually owned and locally managed business in favour of great corporations with branches in several places, with policy-making headquarters in one place and owned by an indefinite number of persons. On the social side, among other phenomena there is the equally significant disappearance of personally administered charity. In its place has developed specialised philanthropic work carried on through voluntary welfare organisations and administered by trained technicians. In nearly 325 American communities a further advance in philanthropic method finds embodiment in the community chest. Without going so far as to merge or consolidate the individual philanthropic service units as the great national corporation has done with industrial units, the community chest aims to co-ordinate the forces of the member charitable agencies in the direction of more efficient service for the entire community. The combined appeal for funds which the community chest makes once a year is one way in which it endeavours to co-ordinate local philanthropic effort" (p. 27). Another way in which co-ordination is attempted is by aiding member organisations in budgeting so as to eliminate duplication of welfare work and overlapping of activities.

The main questions dealt with in the Report are, the nature

of the corporations contributing to community chests, the relative amount of such contributions compared with those obtained from individuals, and the tendency of those amounts to increase or decrease over the period, 1920 to 1929. In a summary of the Report there is a clear and concise statement of conclusions on these quantitative aspects. The Report itself bears the not unusual marks of over-elaboration of detail and some lack of discrimination between "search" and "research." It contains, apart from elaborate appendices, 16 charts and 68 tables, and while many of these may no doubt have been useful exercises for the investigating student, the necessity for their inclusion in the Report is more obscure. The chief purpose of this investigation, we may suppose, is the guidance it can afford to the development of social policy in America, and the absence of State provision for contingencies there makes the investigation of considerable potential importance. Charts and tables are only required for the accurate presentation of important facts or for the purpose of aiding in some required conclusion; some of the tables here included give little aid in these directions. Indeed, on the main question which the investigation sets out to solve, the *basis* of corporation contributions, the conclusion, such as it is, is of a nature which defies statistical aid. On this question it is stated: "Definite answers to questions as to the grounds on which 34,000 corporation contributions were made to community chests for 1929, or as to the adequacy of those corporation contributions, cannot be given at this time. Community chests depend upon *voluntary* contributions. This signifies that moral considerations enter into the decision by the corporation as to the amount the corporation will contribute. The considerations which have influence with corporation boards of directors are probably as imponderable as they are with individuals faced with making a similar decision. Were the problem more profoundly studied it would probably be found that the factor of greatest influence in determining corporation contributions to charity is the 'personality' of the corporation" (p. 46). The profundity required to reach this conclusion will, it must be hoped, be extended to the defining of "personality." No profundity is, however, required to anticipate that this line of investigation will tend to raise that awkward question of "cause or effect?" which troubled O. Henry in the case of the millionaire philanthropist.

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University of Edinburgh.

Commercial Goodwill. By P. D. LEAKE. Second Edition. (Pitman. Pp. 220. 15*s.*)

MR. LEAKE writes as an expert accountant, but his book is full of economic interest and reflection. He is, in fact, explaining the history, the legal conditions, and the valuation of that "element of monopoly in all business" which was a favourite point of Marshall's. In some recent discussions, the existence of this element of monopoly has been used to explain the fact of competitive equilibrium under decreasing cost; but in fact it was so used by Marshall himself, both in the *Principles* and in *Industry and Trade.* The cost of building up a business connection was an essential part of the theory of profit as he regarded it, and the relation of these connections, or preferential markets, to each other doubly affected the rapid expansion of competitive supply; partly because the special market would not stand rapid expansion without spoiling, and partly because of the resistance of competitive special markets to invade. Mr. Leake throws much interesting light on these questions. He finds that goodwill has been a transferable feature of business since the sixteenth century. It may be personal, local, or attached merely to names and brands. Its valuation, which is the important part of the argument to economists, depends in his view on the capitalisation of future *special* profit to a new operator upon the results of previous labour. This capitalisation depends on a number of factors, and especially on the basis of the goodwill, whether mainly personal or impersonal. The treatment of the subject, in relation to both private and public business, is so lucid in arrangement and exposition, that this book, now brought up to date with the latest legislation, has become a standard work on its subject.

D. H. MACGREGOR

Marx–Engels Gesamtausgabe. Edited by D. RYAZANOV. German Edition: Marx–Engels Archiv, Frankfort. Lesser writings, 3 vols.; Correspondence, 3 vols.

THE literature of Marxism abroad, a whole academic literature in itself, is growing to such vast proportions that it will soon need a Gargantua to cope with it. But the foundation of it must always remain the publications of the Marx–Engels Institute in Moscow, for they have most of the manuscripts in their possession, and nearly all the relevant material, both printed and unpublished, at their command. Under the editorship of Ryazanov, the most eminent of Marxist scholars and until recently Director of the

Institute, it has undertaken the enormous task of a complete edition of all the writings of Marx and Engels—a more than Five-Years' Plan in itself. It is intended to be definitive and final; every scrap of writing that can be traced to them is to be reproduced; great libraries have been searched through for material, much has been communicated by diligent researchers, sales have been carefully attended for what they might yield, transcriptions have been made, wherever possible, from private collections. There can be little that remains, though here and there a handful of letters may persist unsifted, as in the case of a collection of private papers at Oxford—but not unknown to the Institute. Of this great projected work we have so far received only six volumes; it will be completed in about forty.

Ryazanov has wisely planned the work in three main sections, whose publication may take place simultaneously. The first section is to be the collected works with the exception of *Capital*; this will take seventeen volumes, of which we have received the first three. These contain the separate writings of Marx and Engels up to 1844, before the period of their collaboration. They are mainly literary and philosophical; but they go up to the political contributions of Marx to the Deutsch–Französische Jahrbücher, and include the essay "Zur Juden-frage." On the side of Engels there is a great deal of new light thrown by the greatly expanded collection of his early letters (Second Volume, First Part).

The second section of the main work will be taken up by *Capital*, with all the writings that are dependent on it. Here, as Ryazanov remarks, the greatest difficulties in establishing the text are to be found. The confusion that exists for Marxist textual criticism to clear up here can be only equalled by the early Christian fathers; the editor, however, is rather more hopeful of success. He plans thirteen volumes, of which none has yet reached us.

We have, lastly, the first three volumes of the third section, which is to contain the whole correspondence of Marx and Engels with everybody. The editor has in these departed from his general adherence to chronology, in order to keep the letters of Marx and Engels to each other separate and to get them out quickly. He has got so far as the year 1867 in these three volumes —the year of the publication of *Capital*. The two concluding volumes of the series are to provide a very complete index to all the names, terms and persons, with citations and authorities from all the works.

It is already evident from what has been so far achieved that there is complete and effective co-ordination in the Institute towards the production of this work. And not this work alone; it publishes at occasional intervals a hefty journal, the *Marx-Engels Archiv*, of which we have received the second number (viii pp. + 613). It has the second of Deborin's "Studies in the History of Dialectic," *Die Dialektik bei Fichte*, and a long chapter on the outbreak at Lyons in 1831 by E. Tarlé; it includes a new version of Engel's *Dialektik und Natur* and many interesting miscellanies, unpublished letters of Lassalle, reviews of books on historical materialism and so on. Indeed, the editing of these works is beyond praise, it is so thorough and scholarly; the production of the books is no less satisfactory—they are strongly bound, well-printed on good paper, and are priced moderately from 12 to 18*m*.

A. L. Rowse

NOTES AND MEMORANDA

A Proposal for a Scientific Tariff

There is one method of stabilising money values, or rather of preventing them from rising above a certain level, that economists have never seriously considered; and that method is a system of temporary import duties levied during times of economic depression. A temporary impost has been suggested by many authorities on industry as a means of raising the country out of the present slump, but it is rejected on the ground that a tariff would become permanent, once the principles of protection had taken a firm hold in national policy, since vested interests would exert every power at their command to render it so. Such an obstacle to the raising of a temporary tariff at a time when it would be of the greatest benefit to the nation ought easily to be removed.

The general conception of protection in its broad economic effects has been muddled by numerous fallacies emanating from the daily Press --even politicians have been influenced, as witness the Mosley Manifesto-- and I therefore purpose to give a simple hypothetical example of a country that has just adopted protective principles, and to describe the subsequent effects on the economic life. To save time and space I will say at once: *other things being equal;* and to avoid irrelevant complications we will assume that the country has raised an *ad valorem* duty of 20 per cent. on all imported commodities.

The first effect of the duty is an immediate reduction in the volume of imports. This curtails the supply of commodities in the home markets, the result being a rise in prices. Business sentiment, taking up the rein, causes a rapid transfer of money from inactive to active channels; which is manifested in an addition to the total volume of means of payment. Thus two distinct factors, a curtailment in the supply of goods and an increase in means of payment, combine to cause a rise in the level of wholesale commodity prices. Since the rise is due in part to an increase in means of payment, it follows that the prices of all commodities rise—not only those that are protected. As there is no obstacle to the flow of exports they continue for a time at the

same rate as formerly, but it will be seen that the rise in the prices of new factory equipment, raw materials and labour—the rise in wages is due to the increased demand for labour—is reflected in a rise in the cost per unit of production, the inevitable result of which is a loss of trade in foreign markets and a falling off in output. During this process, the rise in prices is enabling importers to climb the artificial barrier and the volume of imports is therefore increasing. Thus, from the time of the imposition of the tariff, exports have been falling and imports rising, and this continues until equilibrium is restored. All these movements mark a period of transition from free trade conditions to protected conditions. At the end of this period domestic prices stand on a higher level than before the duty was levied, and, as a little thought will show, the country is once more open to the influence of fluctuations in the world level of money values, from the ravages of which it enjoyed a certain immunity during the period of transition. Therefore, the ultimate outcome of a rigidly imposed protective duty is a return to conditions similar to those prevailing under free trade, with the disadvantage of a net decrease in overseas trade. The favourable balance of trade and the rise in interest rates, in evidence at the outset, would cause an influx of gold which would form a basis for new currency and credit, and thus help to inflate prices. But as this is irrelevant to the matter in hand I have not emphasised the point. It is worthy of note, however. Throughout the example it is assumed that world prices remain fairly constant.

Now let us consider the reverse process and suppose that a change of Government brings about a return to full-blooded free trade. The period of transition is marked now by an immediate fall in the prices of hitherto protected commodities and a gradual fall in the prices of the remainder. As costs of production fall only at the expense of much time and energy, the period of transition is greatly protracted. The reduction of profits causes a disappearance of confidence, and this, in turn, causes a transfer of money from active to inactive channels. The net increase to the country's gold stock, accumulated during the protective period, disperses to the countries whence it came. Much hardship and unemployment follow.

It is my conviction that during a temporary fall in the level of wholesale commodity prices like that which has afflicted the gold standard world since 1929, all efforts to adjust costs of production under modern artificial conditions are a waste of time and energy. There are others who think otherwise—that a fall in prices has

the one redeeming feature of promoting a general screwing up of the industrial structure. Be that as it may, to suggest that there is any benefit to be derived from a fall as rapid as that of 1930 is sheer folly. If, then, a duty on imports could be levied to arrest falling prices—not to cause a rise, but to maintain them at the normal level—the objections to a temporary tariff would be removed.

Let us, then, suppose that, during the present world-wide depression, our imaginary country effects a second change of Government. The new government, noting the influence which protective duties have on the level of domestic prices, determines to exploit them in such a way as to raise prices to the normal level and so maintain them until a wave of optimism produces a general revival of trade. With this end in view, it is proposed a duty be levied on all imports at the same *ad valorem* rate, the duty to vary inversely with every movement in the world level of prices.

A duty calculated to raise prices to the normal level is arrived at—say 30 per cent.—and is immediately put into operation. The same results are obtained as on the previous occasion with the exception that costs of production have not so far to rise, if, indeed, they have to rise at all. We will now suppose that there is a world revival and prices are once again on the upward trend. The Government, still bent on the policy of maintaining prices on the normal level, considers it advisable to lower the duties and acts accordingly. Provided the duties are lowered at a rate in keeping with the rise in prices, the normal domestic level will be maintained because the importer will still pay in duty the difference between the lower external level and the normal domestic level. Thus, if the price of wheat is normally 100 pence a cwt., but during the slump falls to 76·5 pence, a duty of 30 per cent. would raise its price in the home market to 100 pence. If, in the revival, it rises to 90 pence the duty should fall to 11 per cent. to maintain 100 pence in the home market. Prices of individual commodities, however, should not be considered. The purpose of the duty is to maintain the normal level of wholesale prices taking commodities as a whole.

The example above merely serves to show how the duties should be modified to meet a given movement in prices. The Government of our hypothetical country, by making the duties the same all round and adjusting them in relation to the world price level, is achieving two purposes. First, it is keeping the proportion of active money constant by playing on business

sentiment, and secondly, it is preserving the tariff from the influence of vested interests. In broader terms, it is using the tariff for a specific purpose in the interests of the community as a whole. It will be seen that the more vicious half of the trade cycle chart is entirely removed.

The practical difficulties that would be involved in the operation of such a scheme are outside the scope of this paper; but there are a few points that may be of interest. In a practical consideration of the suggestions put forward, the purpose of the scheme cannot be too clearly understood. The scheme should be applied only when a price movement is wholly or partially due to the psychological factor; and then, if partially, only to the extent required to correct that factor. Any permanent change in the value of gold should be followed by a revision of the normal price level, and the duties should be adjusted accordingly. It is evident that if permanent changes be disregarded, the duties would either fall into disuse owing to a decline in the value of money, or, what is far more likely and far more serious, rise, in the course of half a century to the dizziest heights. The normal level of prices is subject to gradual changes over long periods, while the actual level fluctuates, often violently, over short periods, as in the case of the Great Slump of 1930.

It may be thought that the gap between price movement and tariff adjustment constitutes a practical difficulty. Unfortunately, but fortunately in this case, the trend of business sentiment is not always determined by existing realities; for if it were, there would be no such thing as a trade cycle, and therefore no need to control business sentiment. The gap would be bridged by anticipation, which plays a far greater part in business than many of those responsible for the prevailing depression realise. Other questions likely to arise are: What is the normal price level? To what height must the duty rise for a given fall in world prices? Assuming that the scheme proved successful in one country, would it continue to prove equally successful if every gold standard country adopted it? The answers to which I must leave to the imagination of the reader.

E. J. Broster

OFFICIAL PAPERS

Royal Commission on Transport. Final Report.

IT would not be fair to judge the final report of the Royal Commission on Transport from summaries in the daily Press, which did less than justice to the wide sweep of the Commission's inquiry. On the other hand, the economist may complain that some vital questions have been shirked. Each section begins with an historical survey; the one on railways speaks severely of the vacillating policy of Parliament towards the earlier undertakings, with the consequent waste of capital on a large scale. Road transport, on the other hand, " has been allowed to develop with an extraordinary lack of regulated control even from the very important point of view of public safety." The Commissioners adopt the more modern Parliamentary view that competition between railway companies is useless and wasteful; in fact, they would map out the country into areas served by a single group even more rigidly than was contemplated by the Railways Act of 1921. Amateur railway reformers will be disappointed to find that the report does not think that the abolition of privately-owned wagons is either advisable or practicable. But they will welcome the recommendation that the companies should make better use of their faculty for speed, especially for short journeys and cross-country traffic. One suggestion, however, seems quite impracticable, *i.e.* that the companies " should be placed under a statutory obligation to provide a seat for each passenger who joins a main line train at its starting-point." This would take away the Englishman's cherished right of dashing up to a station at the last minute, since the companies would have to stop issuing tickets when a train was reported full.

On other points the Commission holds the balance fairly between the companies and the public, admitting their case for closing little-used and unremunerative branch lines. It accepts Sir Josiah Stamp's contention that many of the elaborate statistical returns might be reduced or simplified. On the other hand, it thinks that the companies have been too conservative over their goods services, *e.g.* in the slight use made of containers and of large wagons.

On the question of road transport the report is less satisfactory. It does not attempt to deal with the fundamental question—Is road transport cheap, or does it only *appear* cheap because the motor owner is allowed to throw a large part of his running costs on the ratepayer? Perhaps the Commission was hampered by

the strange inability of the Ministry of Transport to answer simple economic questions.

Thus (p. 71) the Ministry cannot say "whether the burden of taxation is fairly and properly [what is the distinction between "fairly" and "properly"?] distributed between users of different classes of motor vehicles." Surely the Ministry is paid to answer such questions, and the Commission itself has no doubt that the heavy commercial lorry is "responsible for by far the greater part of the wear and tear on the highway," especially when travelling at a high speed. Again, the Commission notes with surprise that although commercial vehicles are taxed according to unladen weight, there is a maximum tax but no maximum weight; a five-ton lorry pays £48 if fitted with pneumatic tyres, or £60 with hard tyres. Consequently the Commission recommends a "substantial increase" in the duty for each successive ton, rising to £120 for 9 tons. Further, it would use taxation in order to discourage vehicles weighing more than 4 tons, and would prohibit those weighing more than 10 tons except in special circumstances. In these recommendations the Commission is not entirely influenced by the question of damage to the highway, it holds the opinion that "it is not in the national interest to encourage further diversion of heavy goods traffic from the railways to the roads." At this point one would have welcomed a discussion of the real cost of passenger traffic on the roads. How much, for instance, does the ratepayer have to pay for each double-decked omnibus or single-decked motor coach?

The Royal Commission omits to deal with three other forms of road transport, which pay less than the moderate duty levied on the petrol-driven lorry. Vehicles driven by steam or heavy-oil engines escape the petrol tax, and should be made to pay an additional licence duty. Then the owner of a lorry or tractor who does not wish to pay the full weight tax may avoid it by the simple device of attaching a trailer; he can draw three trailers, each as big as a lorry, for the insignificant sum of £6 a year.

Another form of road transport—the tram—which is really cheap, since it maintains its own track, appears to the Commissioners to be "if not obsolete, in a state of obsolescence." Tramway companies have been heavily handicapped by their insecure tenure under the Act of 1870; the Commission recommends a much longer tenancy.

On the question of road costs the report is rather confusing. It talks of making the motor owner pay two-thirds, instead of one-third as at present, towards the £60 million a year now spent

on roads. But as the motor owner now pays £20 million directly and another £20 million indirectly, the proposed change is merely a transfer from the local to the imperial exchequer. It may be asked here whether the country can afford £60 million a year for its roads, especially when railways, canals, and coasting vessels have hardly enough traffic to keep them going. If the use of the heavier vehicles is discouraged, and if those which survive pay a higher duty, there should be less wear and tear of the roads and a larger revenue for the Road Fund.

The Royal Commission has no great belief in canals as a whole, though it says that "certain canals still possess considerable value as a means of transport." It recommends further amalgamation, and would like certain railway-owned canals transferred to new Canal Trusts. It has little to say about harbours, docks, and coast-wise shipping.

The title of this final report is "The Co-ordination and Development of Transport," but the Commissioners have very little to say on the subject. Perhaps they realise that co-ordination was one of the war-time slogans; few people now believe in the superman. If the various forms of transport are required to bear their own cost of working they will fall into their proper places in the national economy. J. E. ALLEN

Memorandum on International Trade and Balances of Payments, 1927–29. Vol. I: *Review of World Trade.* League of Nations. (Allen and Unwin. 4s.)

THIS small volume of little more than 100 pages contains a comprehensive review of world trade during the years 1927–29. These three years are characterised by a steady growth in international trade, by the improvement in the relative position of European trade after the set-back in the preceding years, and by a change in demand due to the increase in the wealth of the world. The period of trade prosperity came to an end, however, late in 1929.

The Memorandum brings out clearly the connection between trade movements and the situation on the international capital market during the period which preceded the present crisis. In 1929 the United States, the United Kingdom, France and most other lending countries reduced their capital exports and employed a larger proportion of their national income than in 1928 for domestic consumption or investment. Their imports rose, and their export trade either fell off or increased less than their imports.

Their trade balance accordingly became more passive (or less active) than in 1928.

The stringency in the international capital market was felt particularly by the borrowing countries in Europe, most of which had to reduce their imports and increase their exports. The trade balance of Germany, Poland, Hungary, Roumania, Yugoslavia and certain other countries became active in the course of 1929. The comparatively rich cereal crops these countries enjoyed contributed to the change.

On the other hand, a number of agricultural countries in other continents, the value of whose exports fell off in consequence of light crops and falling prices of their main products, increased their imports. Owing to credit difficulties, the majority of these countries were obliged to settle their accounts by exporting gold or drawing upon their foreign balances.

Trade between European countries would appear to have increased more rapidly than that between Europe and other continents. In 1929 the larger sales of food-stuffs by the agricultural to the industrial countries in Europe and a temporary expansion of the coal trade contributed to the growth in inter-European trade. A number of non-European countries reduced their exports to Europe in the same year. The greatest reduction is recorded by Canada, whose exports to Europe fell from \$657 million to \$435 million as a result of smaller sales of cereals.

Separate sections in the Memorandum deal with trade by continental groups and individual countries, trade per head of population, trade balances, trade by classes of commodities, price and *quantum* changes, direction of trade, etc. Of particular interest are the data regarding the trade balance of the British, French and Dutch Empires as well as of the different continents. It should be mentioned, finally, that an estimate is made of the "invisible" items offsetting the large European surplus of imports.

(COMMUNICATED.)

Survey of the Direct and Indirect Means at the Disposal of Foreign Buyers to enable Them in a Number of Countries to ascertain the Quality of the Goods acquired by Them. League of Nations. (Allen and Unwin. 5*s*. 6*d*.)

THE Economic Committee submitted to the Council in 1923 and 1924 two reports on this question. In the former, it laid stress on the fact that the protection of the consumer against worthless goods is primarily a matter for national legislation, and

that it is important, from the point of view of international trade, that any measures taken with this object should not be of a kind to discriminate between imported goods and similar goods of national origin, or to impose undue burdens on international commerce. The Economic Committee subsequently showed that the method of customs prohibitions or restrictions is quite unsuitable as a means of overcoming the difficulties with which the buyer is faced owing to the defective quality of the goods.

The Assembly of the League felt it desirable that the public should be made acquainted with the national laws and regulations regarding standards for type, composition and manufacture which already existed, and at its sessions in 1924, 1925 and 1926 adopted successive resolutions urging the necessity for completing the information collected by the Secretariat, and for making this as widely known as possible. A first edition of this information was published in 1928, and the present document is a second edition revised and enlarged.

The document includes an alphabetical index of products for which foreign buyers may avail themselves of protective measures. This index enables the reader to inform himself of the precise measure of protection attached to any particular product.

(COMMUNICATED.)

The Cost of Living Index-Number. Ministry of Labour. (Stationery Office. Pp. 13. 3*d*.)

IN view of the number of collective agreements which are still in operation for the adjustment of wages in accordance with the cost of living index, the Ministry of Labour has reprinted this detailed account of the scope and method of calculation of the statistics on which it is based. The principles of this calculation have remained unchanged since the index-number was instituted.

Second Interim Report of the Gold Delegation of the Financial Committee. League of Nations. (Allen and Unwin. Pp. 22. 1*s*.)

THE first Interim Report was reviewed in this JOURNAL in December 1930, and dealt with the future demand and supply of gold. This second Report deals with the distribution of the supplies. While the present distribution is mainly the result of abnormal general economic conditions, the main question is that of future prospects. The Committee considers the contribution

which may be made by monetary policy, in view of recent changes in the working of the gold standard. It deals at some length with the functioning of that standard, and of the new conditions created by new banking laws, especially with regard to gold exchange, the percentage reserve system, and the narrowing of gold points. It considers that the future policy of lending countries should have two main obligations—the maintenance of a steady flow of capital and credit, and the restriction of loans to productive purposes. Finally, it emphasises the need for co-operation between Central Banks.

Economic Literature in the Marx-Engels Institute

With complete State control of international trade and foreign exchange, the Russian Government is able to ensure that things shall be purchased abroad strictly in order of their real importance, and it is interesting for an economist to observe that for one purpose at least economic literature apparently stands high on the official list. Among the most interesting sights for an economist in Moscow is the economic section of the library of the Marx–Engels Institute. Here there is gathered together a collection of literature in all European languages on economics, both theoretical and applied, at least as complete as is to be found anywhere else in the world. An exhaustive and complete collection of Marx and Marxiana one might expect to find, but it was surprising to see a collection almost as complete of the "classical" writers, of more modern literature, and of writers of the pre-Adam Smith period as well. And the Marx Engels Institute is not content with a complete collection of Adam Smith's works, both in English and in translations. In the spirit of the fanatical bibliophile, it insists on getting the first editions, and all subsequent editions as well, so far as that is possible, and treats most other writers in a similar way. The librarian in charge of the section, a lady, proudly points out that the Institute possesses pamphlets which are not to be found in the British Museum, and where copies of rare publications never come on to the market, photographic reproductions have been purchased. There is scarcely an economic writer in England, or indeed in Europe or America, whether of good repute or ill, a full collection of whose works he would not discover enshrined in the Marx–Engels Institute Library. The theological zeal of the Communists accumulates not only all the works of the true prophets and the commentaries thereon, but the works of the false prophets and the schismatics as well.

This literature is not, of course, available for the ordinary reader. It is not everybody who is admitted to work in the Marx–Engels Institute, but not the least of the shocks received by the visitor to Moscow who has heard much about the necessity for husbanding the supplies of valuta, and carefully controlling imports, is the discovery that such considerable resources are being devoted to the construction of this library. The economist may perhaps be inclined to take a more favourable view of Russian " dumping " when he reflects that part of the proceeds is definitely earmarked to purchase his own works.

ALLAN G. B. FISHER

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Skeates, R.
Smith, H. T. W.
Smith, J. S.
Southall, A. M.
Stenhouse, W.
Stevenson, A.
Stewart, A.
Stuart-Menteth, Major A. H.
Subbiah, V.
Sudbury, A. F.
Sullivan, Prof. R.

Sur, A. K.
Tan, S. H.
Taylor, H.
ter Meulen, H., Jr.
Tessier, C. F. G.
Thompson, G.
Thorne, W. J. V.
Thresher, M. B.
Toes, F.
Tomlinson, J. L.
Traylen, J. F.
Treadaway, E.
Tucker, A. G.
Turner, G. R.
Tzannides, K. B.
Wadehra, G. C.
Walker, J. D.
Walker, J. M.
Walsh, D. P.
Walters, A. J. C.
Warner, Prof. W. J.
Warrington, G. D.
Wheatcroft, Miss M.
Woods, W. H.

The following have compounded for life membership of the Society :—

Broadbent, W. K. B.
Bromhead, Lieut.-Col. A. C C.B.E.
Brown, A. C. B.
Brown, D. M.
Dābké, B. S.
Dameron, W. R.
Emmerson, H. C.
Graham, R.
Hargreaves, K.
Kadam, Capt. S. R.
Kermode, D. E.
Massey, Rev. F.
Miller, Prof. H. E.
Neil, J. L.
Neuman, A. M.
Pritchard, F. C.
Rudra, S. K.
Sahaya, S.
Shiomi, Prof. S.
Tien, Shu-Hsiang.

The following have been admitted to Library membership of the Society :—

Australian Gas Light Co., Ltd., Sydney.
Australian Sugar Producers' Association, Ltd., Brisbane.
Bell Telephone Company of Canada.
Biblioteca dell' Universita Cattolica, Milan.
Bleecker Bik & Co., Ltd., London.
De Javasche Bank, Batavia.
Federazione Provinciale Fascista dei Commercianti, Milan.
Fukien Christian University, Foochow.
Government Savings Bank of New South Wales, Sydney.
H.M. Stationery Office.
John Crerar Library, Chicago.
Labouchere & Co., Amsterdam.
McMaster University, Canada.
Ministry of Commerce, Belfast.
Nankai University, Tientsin.
Nederlansch Verbond Van Vakvereenigingen, Amsterdam.
Preussiche Staatsbibliothek, Berlin.
Queen's University, Ontario.

School of Agriculture, Cambridge.
South Dakota State College.
University College, Leicester.
University of Jena.

The Centenary Meeting of the British Association will be held in London from September 23 to 30, 1931, under the Presidency of General Smuts. Professor Edwin Cannan will preside over Section F (Economic Science and Statistics). Special importance attaches to this Centenary Meeting, and the Association hopes for a full attendance to ensure the support of the scientific researches and other activities carried on under its auspices. Members of the Royal Economic Society are particularly invited to attend. Particulars may be obtained on application to the Secretary, British Association, Burlington House, W.1.

The forthcoming meeting of the International Congress for Studies regarding Population will be held in Rome from the 7th to the 10th September 1931. Reports and communications will be accepted in English. Those who take an interest in the Congress and would like to receive the detailed programme which is now available are invited to apply to the Comitato Italiano per lo Studio dei Problemi della Popolazione, 10 Via delle Terme di Diocleziano, Roma (Italia).

The Association for Education in Industry and Commerce will hold its thirteenth Annual Conference in London from June 15–17, 1931. Particulars can be obtained from the Honorary Secretary, Mr. J. Knox, Port Sunlight, Cheshire.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

Vol. XCIV, Part I. *The National Capital; the Inaugural Address of the President.* J. C. STAMP. *Statistics of Totalisator Betting.* A. P. L. GORDON. *The International Statistical Institute.* A .L. BOWLEY. *Taxation of Various Classes of the People.* D. M. SANDRAL.

Quarterly Journal of Economics.

FEBRUARY, 1931. *Economic Aspects of the Boulder Dam Project.* P. T. HOMAN. *The Leontief and Schultz Methods of deriving "demand" Curves.* E. W. GILBOY. *Some Effects of the English Unemployment Insurance Acts on the Number of Unemployed relieved under the Poor Law.* H. L. WITMER. *A Neglected Phase of Tariff Controversy.* D. B. COPLAND. *The Readjustment of Workers displaced by Plant Shutdowns.* E. CLAGUE and W. J. COUPER.

Review of Economic Statistics (Harvard).

NOVEMBER, 1930. *The General Course of Wheat Prices in France, 1350–1788.* A. P. USHER. *Statistical Background of the Crisis of 1857.* A. H. COLE. *Business Volumes during Periods of Decline and Recovery.* J. B. HUBBARD. *Employment and the Buying Power of Consumers.* W. A. BERRIDGE.

FEBRUARY, 1931. *Review of the Year* 1930. W. L. CRUM. *The Coffee Industry in* 1930. F. E. RICHTER. *The Money Market in* 1930. W. R. BURGESS. *Seasonal Variations in Selected Series of Weekly Data.* B. FOX. *Commercial-paper Rates and Bond Yields.* J. B. HUBBARD.

Journal of Economic and Business History (Harvard).

FEBRUARY, 1931. *The Business Man and Economic Systems.* N. S. B. GRAS. *The Economic Relations of Boston, Philadelphia and New York,* 1680–1715. C. NETTELS. *Disposal of the Public Domain in Illinois.* P. W. GATES. *The Father of New England Stage-coaching.* O. W. HOLMES. *A Mercantilist Episode.* R. H. GEORGE. *The Rise and Fall of the Stinnes Combine.* M. L. HARTSOUGH. *Walker's Financial Mission to London.* A. E. TAYLOR.

Journal of Political Economy.

FEBRUARY, 1931. *The German System of Arbitration.* W. T. HANN. *The Collection and Division of Revenues between State and Local Governments.* M. S. KENDRICK. *The Aviation Industry.* M. W. WATKINS. *Recent National Trade Agreements in the Silk Hosiery Industry.* L. W. COOPER. *The Italian School of Mathematical Economists.* H. SCHULTZ.

American Economic Review.

MARCH, 1931. *Economic Conflict in International Affairs.* M. B. HAMMOND. *The Large Corporation in American Economic Life.* G. C. MEANS. *Advertising and Economic Theory.* C. A. STOCKING. *Preferred Stock in U.S.A.* G. H. EVANS. *Economic Theory and Natural Science Theory.* M. A. COPELAND. *Institutionalism and Orthodox Economics.* E. M. BURNS.

Proceedings of the Forty-third Annual Meeting of the American Economic Association. The main subjects on which papers are printed are: *The Modern Merger Movement.* M. W. WATKINS and W. L. THORP. *The Work of the Federal Farm Board.* J. S. DAVIS and J. D. BLACK. *International Economic Relations.* E. M. PATTERSON and J. DONALDSON. *The Business Depression of 1930.* C. SNYDER and J. SCHUMPETER.

Annals of the American Academy of Political and Social Science.

JANUARY, 1931. *The Coming of Industry to the South.* A study of American industry by various writers.

MARCH, 1931. *The Insecurity of Industry.* Part I. *The Unemployment Situation* (in twelve short papers). Part II. *Stabilisation of Employment.* (Papers by business men and economists on the main types of remedy for unemployment.)

Wheat Studies (Stanford, California).

FEBRUARY, 1931. *Speculation, Short Selling and the Price of Wheat.*

MARCH, 1931. *Official and Unofficial Statistics of International Trade in Wheat and Flour.* Mainly a discussion of Mr. Broomhall's *Corn Trade News* Statistics.

MAY, 1931. *Survey of the Wheat Situation Dec.* 1930 *to March* 1931.

International Labour Review.

JANUARY, 1931. *French Legislation on the Dismissal of Workers.* R. PICARD. *The European Lignite Industry. Analysis of Legislation in Force on Unemployment Insurance.*

FEBRUARY, 1931. *The Continuous Working Week in Soviet Russia. Labour in Abyssinia.* M. GRIAULE. *Old-age Pensions in the United States.* M. STACK. *Jewish Workers in Palestine.*

MARCH, 1931. *The Social Effects of the Economic Depression in North America.* H. B. BUTLER. *More Mechanisation in Farming.* L. E. MATTHAEI. *Indian Labour in Ceylon.* L. SUNDARAM.

Indian Journal of Economics.

JANUARY, 1931. *Papers read and discussed at the Fourteenth Conference of the Indian Economic Association.* These papers deal mainly with questions of banking in India, with Indian labour, and with the theory of Distribution.

Kyoto University Economic Review.

DECEMBER, 1930. *Tax Bases in Land, House, and Business Taxes.* M. KAMBE. *The Disparity between the Rich and the Poor in the Big Cities of Japan.* S. SHIOMI. *On the Financial Development of Japan.* E. HONJO. *On the Fixing of a Standard of the Price of Rice.* Y. YAGI.

World Trade (International Chamber of Commerce).

JANUARY, 1931. *Competition between Road and Rail.* P. SILVERBERG. *Large-scale International Undertakings.* L. URWICK. *The Overproduction of Coffee.* A. FAUCHÈRE. This is an interesting and concise account of the Coffee Valorisation scheme.

Index (Stockholm).

FEBRUARY, 1931. *The World's Staples.* I. *Cotton.* J. A. TODD.
MARCH, 1931. *Unemployment—a World-wide Problem.* W. MARTIN.
APRIL, 1931. *The World's Staples.* II. *Wheat.* G. J. S. BROOMHALL. Brings together the statistics relating to the present overproduction.

Skandinaviska Kreditaktiebolaget.

JANUARY, 1931. *The Shortage in the Supply of Money.* G. CASSEL.

Revue d'Économic Politique.

NOVEMBER, 1930. *La question d'or.* C. RIST. *La dépression des prix après 1873 et en 1930.* P. DIETERLEN. *La réforme monétaire en Tchécoslovaquie.* A. BASCH.
JANUARY, 1931. *La question d'or devant la Société des Nations.* B. NOGARO. *L'œuvre économique de F. von Gottl-Ottlilienfeld.* M. HALBWACHS. *Que faut-il entendre par le coût de la guerre?* C. GIDE. *Les facteurs de dépression d'après les banquiers anglais.* L. BAUDIN. *Dumping ordinaire et dumping sovietique.* B. ELIACHEFF.

Journal des Économistes.

JANUARY, 1931. *Quelques réflexions sur le chômage.* P. W. DE ROMILLY. *L'industrie houillère dans le monde.* R. J. MERRE.
FEBRUARY, 1931. *Le problème de l'or à la Banque de France et en Grande-Bretagne.* E. PAYEN. *L'industrie pétrolière dans le monde.* R. J. PIERRE. *L'impôt sur les transports.* G. DE NOUVION. *Évolution historique de la Bourse d'Anvers.* M. CARSON.
MARCH, 1931. *La question d'or et la question de l'argent.* E. PAYEN. *La situation économique de la Roumanie* (1918–28). E. LÉMONON. *Zones franches et forts francs.* G. DE NOUVION.

Revue de l'Institut de Sociologie.

OCTOBER, 1930. *Les traits généraux de la vie sociale et le mécanisme des institutions.* L. WODON. *La disparité des pouvoirs d'achat.* G. DE LEENER.
JANUARY, 1931. *Misère et capitalisme dans la conception socialiste.* A. LABRIOLA.

Schmollers Jahrbuch.

FEBRUARY, 1931. *Nominalismus und Begriffsrealismus in der Nationalökonomie.* K. PRIBRAM. *Einfluss des Zinsfusses auf den Sparen.* C. v. REICHENAU. *Die Abwanderung vom Lande und das "Goltzsche Gesetz."* P. QUANTE. *Die Ursachen des neueren Geburtenrückganges.* E. WURZBURGER. *Finanzwissenschaftliche Irrwege.* F. K. MANN.

Zeitschrift für die gesamte Staatswissenschaft.

JANUARY, 1931. *Karl Bücher.* G. BRODNITZ. *Die Gestaltung der wirtschaftlichen Machtverhältnisse in Mitteleuropa.* H. BAYER. A plea for regional agreements between the agricultural and industrial districts of Middle Europe. *Bruno Molls Lehrbuch der Finanzwissenschaft.* E. H. VOGEL.

MARCH, 1931. *Die objectivistischen Preistheorien auf empirisch-realistischer Grundlage in der neueren Literatur Deutschlands.* E. H. VOGEL. A discussion of the theories of Diehl, Liefmann, Gottl, Eulenberg, Sombart, and Zwiedineck.

Jahrbücher für Nationalökonomie und Statistik.

FEBRUARY, 1931. *Untersuchungen zur neueren Literatur des Zurechnungsproblems.* P. GROAG. *Verstehende Statistik.* H. WOLFF

MARCH, 1931. *Der Sinn des Preisabbaus.* B. JOSEPHY. *Konjunkturtheorie, Arbeitslosigkeit, und wirtschaftliche Entwicklung.* SCHRODER.

APRIL, 1931. This number is in honour of the 75th birthday of Ludwig Elster. *Die Bedeutung der Wirtschaftsganzheit für den Wirtschaftsprozess.* G. ALBRECHT. *Unternehmergewinn und Konjunkturgewinn.* K. DIEHL. *Agrarkreisen, Konjunkturzyklen, und Strukturwandlungen.* C. v. DIETZE. *Recht und Technik des wissenschaftlichen Sammelwerks.* A. ELSTER. *Die wirtschaftlichen Grundlagen der Gross-stadt.* W. MORGENROTH. *Grundlagen des Geburtenrückganges und Moglichkeiten seiner Berkämpfung.* J. MÜLLER. *Kostenreste und Wertgrossen der Betriebsanlagen während ihrer Nutzungszeit.* E. PAPE. *Fluch und Segen der Wirtschaft im Urteile der verschiedenen Lehrbegriffe.* O. SPANN. *Gewerkschaften und Kartelle als Marktverbände.* A. WEBER. *Der Binnenmarkt.* F. ZAHN.

Weltwirtschaftliches Archiv.

APRIL, 1931. *Wirtschaftsverfassung, Geldverfassung, und Reparationen.* E. LUKAS. A contribution to an analysis of the existing German economic crisis. *Der Kreislauf des Geldes.* H. NEISSER. *Der Geltungsbereich der Grenzwertlehre.* W. KEILHAU. *The Resource Hierarchy of Modern World Economy.* E. ZIMMERMAN. *Essay on Changes in the Distribution of British Overseas Trade in Wool Textiles during the past ten years.* G. H. WOOD. *Die Entwicklung der Europäischen Finanzmonopole in der Nachkriegszeit. I. Die Entwicklung der Tabakmonopole.* H. G. ROSS. *Zur Rolle des Finanzkapitalismus im Zeitalter des Hochkapitalismus.* H. SÉE.

Zeitschrift für Nationalökonomie.

JANUARY, 1931. *The Statistical Laws of Equilibrium according to Henry Schultz.* U. RICCI. A sympathetic criticism, especially with reference to the ambiguity of determining trends and the extrapolation of statistical demand and supply curves. *The Subjective and the Objective Aspect of Marginal Utility.* J. WYLER. *Critical and Positive Remarks on Monetary Theory.* A. BILIMOVIC. A criticism of Walras' approach to the quantity theory, with reference also to Pietri-Tonelli. *Three Problems of the Theory of Monopoly.* E. SCHNEIDER. A discussion of special cases of bilateral monopoly,

of duopoly, and of universal monopoly under certain assumptions. *The Enigma of French Gold Policy.* K. SCHLESINGER. The author attributes the policy to a desire to influence the internal and external price levels in favour of the *rentier* and the working classes. *Ideology and Utopia.* A. MENZL.

Zeitschrift für Nationalökonomie.

MARCH, 1931. *Open Problems in the Theory of Costs and Returns.* O. MORGENSTERN. A synthesis of recent discussions on the laws of return, concludes that on the whole the prevailing tendency is to turn from the method of partial to that of total equilibria. *Can the Quantity Theory of Money be statistically proved?* O. ANDERSON. Holds the statistical method cannot dispense with a theoretical approach. Fisher's equation of exchange is found to be in accordance with facts as tested empirically, and a similar conclusion follows from Bulgarian price movements. *Dynamic Problems of Value.* J. AKERMAN. After discussion of the methods of Moore and Schultz, it is concluded that it is possible to determine a typical elasticity of demand for any given period.

Archiv für Sozialwissenschaft und Sozialpolitik.

FEBRUARY, 1931. *Die französische Währungspolitik seit der Stabilisierung und ihre Folgen.* G. RAPHAEL.

Vierteljahrshefte zur Konjunkturforschung.

SONDERHEFT, 21. *Der Trend. Ein Beitrag zur Methode seiner Berechnung und seiner Auswertung für die Untersuchung von Wirtschaftskurven und sonstigen Zeitreichen.* P. LORENZ.

Sonderheft 22. *Kapitalbildung und Investitionen in der deutschen Volkswirtschaft 1924 bis 1928.* R. WAGENFÜHR.

Sonderheft 23. *Bestimmungsgründe der Häute- und Lederpreise.* G. KEISER and B. BENNING.

De Economist (Haarlem).

DECEMBER, 1930. *Loonsverhooging en verbruik.* A. A. VAN RHIJN. A detailed discussion of the doctrine that increased wages, by increasing the purchasing power of the workers, stimulates production and promotes national prosperity, suggested by two recent German books, Tarnow's *Warum arm sein*, and Massar's *Die volkswirthschaftliche Funktion hoher Löhne*. Doctrines of under-consumption do not have sufficient regard for the demands of capital formation. In three respects the normal course of a trade cycle does not support the under-consumption theories: (i) "crisis" does not appear in the first place in the consumption trades, as on these theories it should; (ii) the rise in the rate of interest in the upward movement indicates a too small capital formation; (iii) the course of wages shows that a crisis supervenes despite increased purchasing power. It is argued that the appeal to American experience does not support the thesis. Further, so far as concerns the export trades, the under-consumption argument is inapplicable. Another line of argument is that increased wages may be beneficial in acting as a stimulus to rationalisation, and the writer considers this contention under various aspects, but

argues that if the impulse to rationalisation comes solely from higher wages, it will be disadvantageous to the worker, unless care is taken to provide for adequate capital formation, since otherwise the unemployment inevitable to rationalisation will tend to be permanent. In conclusion, a consideration of the sources of capital accumulation and their adequacy. *Het Reparatievraagstuk. Naschrift.* F. H. REPELIUS. A postscript to a recent article on the Reparation question, summarising the situation up to date.

JANUARY, 1931. *De utigifte van de Zuiderzeegronden.* H. W. C. BORDEWIJK. A detailed discussion of the report of the Commission appointed to advise with regard to the disposal, administration and colonisation of the province resulting from the drainage of the Zuider Zee. *Het kultuurelement in de Staatsexpansie.* G. GONGGRIJP. A consideration of the place assigned to the State in the national and international sphere, in the form of a criticism of a recent address by Professor van Embden. Internationally there has been a revival of mercantilist views. Colonial expansion is ordinarily advocated on the grounds of (i) providing an outlet for surplus population; (ii) creating a market for wares; (iii) supplying raw materials; (iv) presenting openings for investment of capital. The writer argues for the influence of different culture levels as a cause of expansion. Nations cannot live together in peace, nor can there be a smoothly functioning world-economy, if there are too great and abrupt differences in culture levels. Where such a situation exists, an expansionist policy may be the condition of a world-economy. *Bescherming en actieve handelspolitiek.* J. OORTWIJN BOTJES. A further contribution to the Free Trade and Protectionist controversy, with a reply by Mr. Posthuma.

FEBRUARY, 1931. *Eenige gegevens omtrent de ontwikkeling van de industrieele structuur in de Vereenigde Staten van Noord-Amerika.* P. LIEFTINCK. America is usually accepted as the "Country of Big Business," but the term "industrial concentration" is susceptible of different interpretations. A detailed analysis of the size of American businesses in recent years, according to number of employees, output, power, etc. *Psychisch inkomen en Psychisch vermogen.* I. J. VAN DER WIJK. A discussion on mathematical lines of the distribution of income, supplementing Pareto. *Bescherming en actieve handelspolitiek.* J. OORTWIJN BOTJES. Continuation of discussion of tariff policy. A further postscript by Mr. Posthuma.

MARCH, 1931. *Het aanpassingsprocess na den conjunctuuromslag.* W. L. VALK. The writer discusses, not the causes of the trade cycle, but the methods whereby, in a given condition of *malaise*, a way out can be found. The various factors which impede or promote an adjustment are considered. The trouble arises from the fact that on the one side there are excessive supplies of goods, and on the other supplies of money not brought into circulation. Hence a vicious circle in which each one, anxious to minimise his own losses, restricts his activity and thus increases the losses of all. Various possible influences are considered: (i) the possibility of affecting an adjustment by a general (and legally enforced) lowering of prices parallel with the diminution of money available; (ii) Limitation of production; (iii) Changes in the prices of the factors of production and their later consequences; and in particular the suggestion of increased wages in order to increase pu-

chasing power: "In times such as these it may be said that the worst enemies of the workmen are to be found among a section of their friends, who, shortsighted as they are, preach a raising of the level of wages, whereas a lowering of them, paradoxical as it may sound, is a first condition of the well-being of the working classes in a time of malaise." *Eenige gegevens omtrent de ontwikkeling van de industrieele structuur in de Vereenigde Staten van Noord-Amerika na* 1900, II. P. LIEFTINCK. A continuation of the discussion of the development of American industry. Each branch of industry goes through three (and sometimes four) stages: (i) the pioneer stage; (ii) the stage of expansion; (iii) the stage of consolidation and the search for equilibrium; and (in certain cases) (iv) the stage of dissolution and decay. The characteristics of each of these stages are discussed, and illustrated by reference to a number of specific industries. *Psychisch inkomen en Psychisch vermogen*, II. J. VAN DER WIJK. A continuation of the mathematical discussion of income in the previous issue.

Ekonomisk Tidskrift (Upsala).

1929, No. 4. *Sparandets plats i en realinkomstberäkning* (Accounting for savings in a calculation of real income). GUNNAR MYRDAL. The problem concerns the logical correlation between the terms monetary income, cost of living and real income. In the calculation of real wages it is assumed that the individuals consume their entire income, whereas in reality a certain proportion of their wages is usually put aside as savings. This brings into play a time-factor, which should be duly taken into account in the calculations. In order that the budget that serves as a basis for calculating the cost of living may correspond to the monetary income, it must include the amount of savings or the capital consumed, as the case may be. The inverted value of the interest factor becomes the price of these budget items. The author then proceeds to discuss in detail the theoretical and practical difficulties involved in making calculations of this kind. *Penningpolitikens normer* (Principles of monetary policy). JOHAN ÅKERMAN. The inflation that marked the War period gave rise to a revaluation of the business cycles theories; those upholding the influence of monetary conjunctures won general acceptance, and attention was mainly concentrated on the fluctuations of the price level. When, however, the constancy of the price level is taken to imply the absence of inflation, the fact is overlooked that rationalisation renders an inflation possible without any rise in the price level. The same effect is produced by the new selling policy and by the fact that the difference between selling price and actual cost price is independent of the height of the price level. Speculation, with the resultant increase in credit, implies a latent inflation and cannot be isolated from the other spheres of economic life. Of the three principles of monetary policy discussed here, viz. the stabilisation of (1) the exchange rates, (2) the price level, and (3) the increase of production, the last-mentioned is the most comprehensive. It practically coincides with the criterion suggested by Mr. Lindahl, namely, regulating the price level in inverse ratio to the country's productivity. *Retrospektiva synpunkter på*

jordbrukskrisen (Retrospective views on the agricultural crisis). DAVID DAVIDSON. The present agricultural crisis is compared with that which prevailed in the 'eighties as a result of the increase in cultivation in oversea countries and the cheapening of transport. The crisis of those days was more easily overcome than the present crisis is likely to be. In Denmark it was combated by adopting a policy of animal production, and in Sweden by emigration and the abolition of certain taxes.

No. 5. *Några förslag rörande beräkningar inom den officiella statistiken* (Some suggestions on methods of calculation in compiling official statistics). F. J. LINDERS. The author emphasises the importance of quoting not only averages in official statistics but also simple figures showing the degree of dispersion, non-symmetrical gauges and mean errors. In a calculation of relative figures the final decimal indicated should be of the same magnitude as the mean error. *Sparbankproblemets kärnpunkt* (The gist of the savings bank problem). DAVID DAVIDSON. In this article the author supplements his report submitted to the Treasury in November 1929 on the result of his investigations into the interest policy of the savings institutions. There is keen competition for the savings of the public existing between the savings banks proper, the Post Office savings banks and the commercial banks, as well as the latest competitor, the co-operative movement. A Swedish private savings bank generally gives its depositors a "pure" rate of interest, *i.e.* one that is reduced to cover difference in risk, which in each case is placed at such a height that in the given case it could not be higher. The possibility of competition by means of raising the rate of interest on deposits without unfavourably affecting the bank's solvency is thus out of the question. The commercial banks and the Post Office savings bank, on the other hand, are capable to a limited extent of competing along these lines. The risk attaching to funds being deposited in the savings banks necessarily devolves upon the depositors, and this fact very largely accounts for the inability of the savings banks to raise their pure deposit rate.

No. 6. *Problemet om skogslagstiftningen för lappmarkerna* (The problem of forestry legislation governing the Lapp districts). DAVID DAVIDSON. The author gives an account of certain phases in the development of Swedish forestry legislation from the date of its initial appearance in the 1860's. *Prisbildningens uppgift* (The function of price-regulation). G. SILVERSTOLPE.

1930, No. 1. *Ur den nyaste konjunkturforskningen* (From the latest business cycles researches). CURT ROHTLIEB. Attempts to explain the riddle of economic crises show a profound lack of agreement. The author gives a detailed account of the theories of Wicksell and Mises. The latter's making the variability of the quantity of means of circulation the gist of the theory of business cycles is commented upon as considerably simplifying the problem. The author then considers the theories of more recent students of conjunctural phenomena: Robertson, Hayek, Hansen, Altschul, and others, and feels justified in asserting that "conjunctural" research has now reached a turning-point, seeing that we must abandon the mechanical view of economic conjuncture as a law-bound undulatory movement and rather study the conformity of exchange mechanism to natural laws as one separate subject, and

the temporary causes that bring about disturbances of the balance as another separate subject. *Ränt epolitiken* (Interest policy). DAVID DAVIDSON. The author emphasises the dangers involved in attempts to overcome a depression by lowering the discount rate, viz. the difficulty of stopping an inflation that has already set in, and the harm done by encouraging speculation on the Stock Exchange.

No. 2. *Individens fruktsamhet and släktets förökning* (The fertility of the individual and the propagation of the race). S. D. WICKSELL. The author shows that the word fertility is employed in different senses. Actual fertility is only a fraction of what is physiologically possible. "Maternity" is defined as that proportion of women at each particular age who have produced children within the year. The total fertility is often expressed as the number of children per family, which is quite a different thing. The author first deals with the less complex problem of determining the total fertility required in order to preserve the race. The connections with the increase or decrease of the population are more complicated. *Kuczynski's* index figure of reproduction is criticised in view of the fact that it cannot tell us how rapid the increase or decrease in the population is. But even if he were able to remedy this deficiency there still remains something illogical in the practical application of his theory in that he assumes a constant maternity. The author supports his arguments by mathematical devices. *Till det tyska skadeståndsproblemet* (Contribution to the problem of German Reparations). BERTIL OHLIN. In this article the author criticises a document entitled "Till det tyska skadeståndsproblemet" published by Professor Brock. The author defends his so-called Purchasing Power Transfer theory. *Ränteläget och annat* (On the interest situation and other subjects). DAVID DAVIDSON. The over-production of raw materials has caused a fall in their real value. This has brought about a fall in the prices of other commodities, which can go on and have disastrous consequences through purchasers' "striking." In all probability the lowering of interest rates is not the right remedy.

No. 3. *Fondbörsspekulation och penningpolitik* (Stock Exchange speculation and monetary policy). ERIK LINDAHL. An increased turnover on the Stock Exchange does not as a rule in itself increase the need for saving. On the other hand, this may happen as a result of the profits on speculation giving rise to an increased consumption and the enhanced values of shares causing an increase in the production of real capital. With regard to the principles to be applied in monetary policy, it is pointed out, *inter alia*, in view of developments in the U.S.A., that a regulation of the price level in inverse ratio to the productivity instead of the actual constant price level would probably have checked over-speculation within certain spheres of production. *Det monetära guldproblemet.* (The monetary gold problem). DAVID DAVIDSON. Under reference to the Federal Reserve Bulletin for June 1930 the author considers that the prevailing depression is not due to a scarcity of gold, but is a consequence of the fall in commodity prices, particularly that of raw materials. The maintenance of a constant price level when productivity is increasing gives rise to artificial conditions. Among other things, it leads to gold actually becoming cheaper, and thus the supply of monetary gold diminishes,

while, on the other hand, the need for monetary gold increases. It is essential that the countries that are on a gold basis should co-operate to bring about a redistribution of gold, otherwise various undesirable consequences will arise, which the author exemplifies. *Är Prof. Ohlins "köpkraftsöverföringsteori" innehållslös?* (Is Prof. Ohlin's "purchasing power transfer theory" meaningless?) FRITZ H:SOM BROCK. The author's criticism aims at showing that a prearranged volume of credit abroad is not absolutely essential for securing the necessary export surplus.

No. 4. *Är gränsnytteläran onödig?* (Is the doctrine of marginal utility unnecessary?). FRITZ H:SOM BROCK. This article consists of a notice of, and in part a criticism of, Prof. Myrdal's recently published work, *Vetenskap och politik i nationalekonomien* (Science and Politics in Economics). The reviewer objects in particular to Myrdal's criticism of the doctrine of marginal utility, which the latter asserts to be untenable. Brock, on the other hand, declares that "the economic man" exactly represents the statistical average of all individuals, being as he is no longer exposed to those contingencies that necessitate the adoption of profound psychological methods. *En försäkringsfråga* (An insurance question). GUSTAV CASSEL. The article is an expression of opinion concerning a law-suit between a policy-holder and an insurance company, the question being the valuation of a claim in Reichsmark, which fell due in 1927 and was based on an insurance policy taken out in 1917. Cassel holds that since 1923 Germany has possessed an entirely new currency, and according to the standard of revaluation laid down in the German Currency Law, the policy-holder's claim is worthless. *Om begreppet ekonomisk jämvikt* (On the term economic equilibrium). ERIK LUNDBERG. With regard to the equilibrium between the demand for and the supply of one commodity, the static alternative method is incapable of showing that a state of equilibrium is reached in the event, for instance, of a shifting of the curve of demand. It is equally probable that oscillations arise that may just as well increase as diminish. The same difficulty arises—though it is far more complicated—in regard to the general equilibrium. Here the author discusses in particular the neglected problem as to how capital and interest on capital are to be incorporated in the simultaneous equation systems that express the general state of equilibrium. The author shows that the system's adjustment of the time factor and, in connection therewith, the interest, cannot be determined alternatively in an equational system. Finally, he criticises certain uses of the equilibrium theory propounded by J. B. Clark, Marshall, Schumpeter, Myrdal and Lindahl.

Giornale degli Economisti.

DECEMBER, 1930. *Vicende monetarie in Bulgaria.* G. BRUGUIER. The present financial position of Bulgaria can be compared in some respects with that of Australia: like the latter, she is an agricultural country, hit by the heavy fall in the prices of raw products. The existing difficulties of the national finances and of the Bank of Bulgaria are the outcome of this economic crisis and cannot be eliminated merely by banking or currency reforms. The solution must be looked for in the intensification and rationalisation of agriculture and in the development of industry so as to increase

exports and diminish imports. *Osservazioni intorno alla misura statistica dell' utilità finale.* L. ROSSI. Some observations on Irving Fisher's statistical method for measuring marginal utility and on a recent contribution by Ragnar Frish to the mathematical presentation of economic theory.

JANUARY, 1931. *Le dottrine sui trasferimenti e il problema delle riparazioni germaniche.* J. G. KRETSCHMANN. A summary of different theories held as to the bearing of the transfer problem on the payment of reparations. The writer concludes that the practical difficulties in the way of the supply of capital to Germany at reasonable rates, and of the reduction of her wage costs, and of the lowering of tariff barriers in other countries, are so great as to render very doubtful the future maintenance of the Young annuities. *Equazione differenziale della domanda e teoria matematica delle crisi economiche.* L. AMOROSO. *Il Consiglio nazionale delle corporazione e alcune istituzioni affini di altri Stati.* DR. BASSANI surveys the attempts of other European States to create Economic Councils or similar bodies to advise the Governments on questions of economic policy, and concludes that both in structure and practical working they are less effective and less well adapted to modern conditions than the Italian National Council of Corporations. *Del principio "produttivistico" nei sistemi di imposizione personale del reddito.* E. D'ALBERGO. It is argued that the "productivity" principle of taxation leads logically to the exemption of saved income from income tax, which should be confined to income actually spent.

La Riforma Sociale.

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THE ECONOMIC JOURNAL

SEPTEMBER, 1931

STATISTICAL STUDIES RELATING TO THE PRESENT ECONOMIC POSITION OF GREAT BRITAIN

The following studies attempt to clear up some of the more interesting and perhaps more neglected points concerning the current economic position. The breadth of the subject necessitates that the statistics given should be highly selective from the large but unsorted mass of available data. They are presented in the form of a chain of studies. It is to be hoped that enough of a connecting thread may be found running through them to give coherence to the whole, but not enough to suggest that the facts are being forced into the mould of any biased formulation. So far as is possible in this kind of work, an attempt is made to secure objective views of the more important aspects of the current situation. But, at the same time, these studies attempt to be both comprehensive and concise. Therefore no attempt is made to recapitulate large masses of established fact; and the paradoxical air of much that is given below is not deliberate, but arises from the concentration upon new work as against statistical work that is already well known.

1. The Export Trade

The most startling feature about the present economic position of Great Britain has been the immense loss of exports during the past eighteen months. Exports during the last few months have only been at the level of 55 per cent. of the average rate of exportation during the year 1929. During the slump of 1920–21, following upon a period of unprecedented disorganisation of values such as had certainly not occurred in 1929, exports fell in 1921 to 53 per cent. of their 1920 money value, and rose slightly in value in 1922. The figures relating to volume of exports are given in Table I.

It appears that during these last few months, with the money value of exports well below the 1913 level, there is some sign of slowing down in the rate of fall, but it is very probable that British exports have not yet reached their minimum.

TABLE I

Volume and Value of British Exports.

	1913.	1924.	1928.	1929.	1930.		1931.	
					Jan.–June.	July–Dec.	Jan.–March.	April–May.
Volume (1924 = 100) . .	120 *ca.*	100	104·6	108·3	93·7	83·9	69·2	—
Value £m. per annum (annual rate) .	525	801	724	729	610	532	414	398
Value Index (1924 = 100) .	65·5	100	90·4	91·0	76·1	66·3	51·6	49·6

This unprecedented loss of exports is attributed to various factors. It is attributed to the general impoverishment of the rest of the world following upon the slump. It is attributed to the particular impoverishment of many countries which are our best customers, owing to the specially heavy fall in the selling values of certain primary commodities. Alternatively, it is attributed to costs and selling prices in British exporting industries being too high in relation to the prices of competing industrial countries. It is important to attempt to analyse these separately.

TABLE II

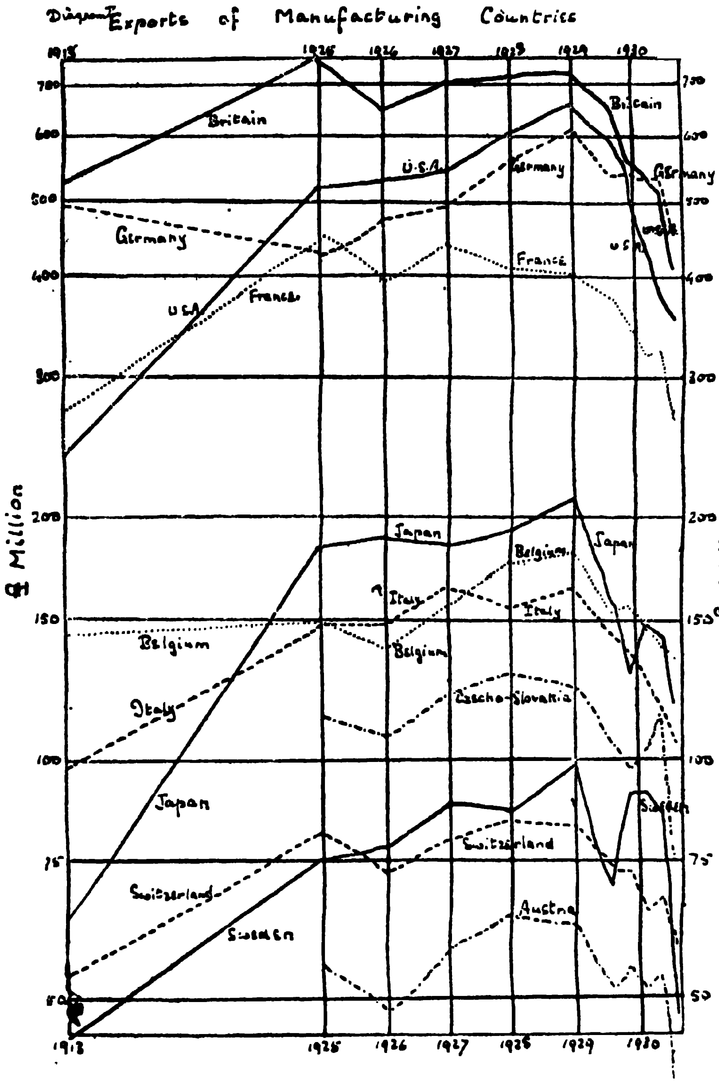
Gold Value of Exports of Manufacturing Countries.

(£ million per annum.)

	1913.	1925.	1926.	1927.	1928.	1929.	1930.				1931.
							1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	1st Qr.
Britain . . .	525	773	653	709	724	729	656	561	544	516	413
U.S.A. (manufactured exports only) .	241	516	536	552	612	670	592	557	444	389	359
Germany . . .	493	430	479	500	568	620	543	547	540	535	456
France . . .	273	459	397	445	413	403	377	352	322	328	270
All Countries Included	2,062	2,990	2,852	3,065	3,208	3,350	2,930	2,755	2,587	2,487	2,071
Britain's Share of above (percentage) .	25·4	25·9	22·9	23·2	22·6	21·8	22·4	20·5	21·0	20·8	19·9
All Countries, excluding Germany and U.S.A. . . .	1,328	2,014	1,837	2,013	2,028	2,060	1,795	1,641	1,603	1,563	1,256
Britain's Share of above (percentage) .	39·6	37·8	35·6	35·2	35·7	35·4	36·6	31·4	33·9	33·0	32·9

Table II compares the exports of this country with those of competing industrial countries. For most countries the figures of exports classified by commodities are generally not recorded until a long period after that period to which they relate. As the exports of most of the countries concerned consist predominantly of manufactures, their whole exports are included in

the table, with the exception of those of the United States, which has a big export trade in food and raw materials, where the manufactured exports alone are included.



The figures for separate countries are plotted on Diagram 1 (reduced where necessary to gold values); the countries included are the U.S.A., Great Britain, Germany, France, Belgium, Japan, Italy, Switzerland, Sweden, Austria and Czecho-Slovakia (Austria-Hungary in the 1913 figure).

It will be seen that the export trade of manufacturing countries as a whole has been very severely hit, the money value in the first quarter of 1931 standing at only 62 per cent. of the 1929 level. The British export trade has been relatively worse hit, having fallen in greater proportion. The greatest gainer during the past two years is seen to have been Germany, the money value of whose exports fell very little all through 1930. The rapid rise of German exports during 1925–29 must, however, largely be attributed to a recovery from the disorganisation caused by the inflation; it will be seen that in 1925, at a time of fairly high world prices, the money value of German exports was below pre-war level. (Loss of territory was a smaller contributory factor.)

Right through from 1913 to 1929 the manufactured exports of the U.S.A. show an extraordinarily strong upward trend. From 1925 to 1929 the money value of British exports showed a downward trend, a small rise in quantity being more than counterbalanced by the fall in the general price-level. The quantity of American exports was clearly rising very rapidly. But in comparing 1929 with the first quarter of 1931 it will be seen that American exports fell even more heavily over this period than British.

The share obtained by Britain of the money value of the exports of all principal industrial countries may be taken as a moderately good measure of our competitive position. It is interesting to notice that in 1925 we enjoyed a slightly higher share than in 1913 of a world trade which in quantity was somewhat diminished. It can be seen how largely this was due to the disorganisation of the German industry. The steady worsening of our competitive position since that date, as shown by the figures of our share of world trade, has been largely due to the recovery of Germany and the rapid rise of the U.S.A. It is interesting to exclude Germany and the U.S.A. from the totals so as to show Britain's competitive position *vis-à-vis* the smaller industrial countries. The deterioration of our share of this latter trade, though not so serious as in the previous figure, is nevertheless quite undoubted.

It may be objected that part at any rate of our loss of exports during the last eighteen months has been due not entirely to our prices being higher than those of competing industrial countries, but is also due to the fact that our industries are specialised to work for certain markets, such as the Indian and Australian, which have been particularly severely hit by the slump in raw

materials (but in which markets also, it is only fair to add, we enjoy tariff preferences). Table III contains figures relating to our loss of exports in different markets. It is interesting to notice the range from a loss of 60 per cent. of our exports in the Indian, Australasian, and Japanese markets to a loss of 18 per cent. only in the Scandinavian and Dutch markets, and an actual increase in exports to Russia. But it is fair to say that in countries in which the slump has been most severe the falling off in imports from Britain appears to have been greatest—Australasia, U.S.A., British India and East Indies—and certainly these countries were our most important customers in 1928–29.

TABLE III

Value of British Exports to Various Destinations.

	Value of Exports 1st Qr. of Year. Average 1928 and 1929 (£M.).	Value of Exports 1st Qr. of 1931 (£M.).	Percentage Fall.
France and Belgium	11·72	8·89	24
Germany and Poland	11·09	5·12	54
Scandinavia and Holland	11·92	9·71	18
Italy	3·91	2·41	38
Russia	1·86	2·05	+10
Rest of Europe	12·48	7·89	37
South Africa	8·65	6·51	25
Egypt and North Africa	4·74	2·76	42
Tropical Africa	6·77	3·90	42
British India	22·66	9·31	59
East Indies, Ceylon, Siam	8·95	3·90	56
China	5·08	3·82	25
Japan	3·34	1·31	61
Rest of Asia	2·61	1·55	41
U.S.A.	11·06	4·49	59
Canada	8·41	4·34	48
Argentine, Chile, Peru, etc.	11·08	6·75	39
Tropical America	8·63	4·43	49
Australasia	17·83	7·09	60
All Countries (excluding Ireland)	172·7	96·2	44

2. EMPLOYMENT IN EXPORTS

It now becomes of interest to ask how much of the increase in unemployment during the last eighteen months is accounted for by this loss of exports. The value of the final product of industry in 1924, free from duplication and Excise charges, is estimated

(excluding building and contracting work) at £2,420,000,000. Of this total £757,000,000 represented the value at works of goods for export. The average number of insured persons at work in manufacture and mining in 1924 was 6,005,000. From a crude comparison of values it appears, therefore, that about 1,880,000 insured workers were engaged in producing for export in 1924, together with a further number who were employed in the transportation and distribution industries as well as in manufacture.

By means of the Index of Production we can estimate the whole output of industry in 1929 valued at 1924 prices; and the number of insured workers engaged in manufacture and mining can also be calculated. From these data it appears that the number of insured workers engaged in working for export, calculated by the above method, fell in 1929 to 1,850,000.

There are two main objections to this method of calculation. Certain of the export trades, such as textiles, are engaged in the production of finished goods having a particularly high content of imported raw materials. £1,000,000 worth of textile exports by this token would give employment to fewer workers than the production of £1,000,000 worth of motor cars for the home market. But again it is not safe to assume that the money value of the year's output per worker in the export trades is at all the same as the value of the output per worker in general industry; or that changes have been at all similar over the period 1924–29.

These two objections are partly obviated by the calculation shown in Table IV.

TABLE IV

Employment in Exports 1924 *and* 1929.

	Gross Output 1924 Free of Duplication (£M.).	Exports 1924 Value at Works or Mine (£M.).	No. of Insured Workers in Employment 1924 (100).	Employed in Manufacturing for Export 1924 (100).	1929 Production at 1924 Values (£M.).	1929 Exports at Works Values 1924 (£M.).	No. of Insured Workers in Employment 1929 (100).	Employed in Manufacturing for Export 1929 (100).
Textiles . .	447	281	1,106	632	433	252	991	577
Coal . . .	250	68	1,093	296	246	66	829	222
All other Industries	1,723	408	3,906	926	2,027	503	4,285	1,063
Total . .	2,420	757	6,005	1,854	2,706	821	6,105	1,862

The objection regarding the high content of imported raw materials carries most force with regard to textiles. Coal is the principal exporting industry in which the average value of output

per worker is much below the general average. In this table the calculations for textiles, coal, and all other industries are therefore made separately. There is evidence to show that any further refinement of this method would not alter the result very materially.

From data showing the relation of quantity of exports to the total quantity of production, it is possible to calculate how much of the employment in railway and road transportation and wholesale distribution may be attributed to the export trades. In view of the importations of raw material involved, more than one-half of the employment in docks and shipping may be attributed to exports. The total employment in transport and distribution attributable to the export trades is estimated at 320,000 for 1924. In view of the rise in the quantity of exports during the ensuing years, this figure may perhaps be put at 340,000 for 1929. The total number of insured workers (including uninsured railwaymen) employed in the export trades may therefore be taken at 2,175,000 in 1924 and 2,200,000 in 1929.

The fall in the quantity of our exports between 1929 and the first quarter of 1931 may therefore be considered to have reduced the numbers employed in exports, including transport and distribution, to 1,400,000, a loss of employment of 800,000. Making use of the figures shown in Table II, it appears that if we had retained our pre-war share of the world's trade in manufactured goods—a share which we still retained as recently as 1925, owing to the disorganisation of German and other European industries—it is safe to say that the quantity of exports in 1929 would have been larger by 16½ per cent. than was actually the case, and 360,000 additional workers would have been in employment. The further deterioration of our share of the world's trade since 1929 may be considered to account for some 150,000 of unemployment at the present day.

It may be held, therefore, that if our position as an exporting country had not been deteriorating, unemployment in 1929 would have averaged about 900,000, as against 1,250,000. The lowest figure to which unemployment can be expected to fall in times of active trade is variously suggested as between 2 and 4 per cent. of the insured population, or anything between 250,000 and 500,000 for recent years. It is thus to be seen that there was a considerable residue of unemployment in 1929 not attributable to the deterioration of our competitive position in world markets.

3. Imports of Manufactured Goods

Quite different conclusions are derived from a study of the imports of manufactures into this country. The crude figures of imported manufactures are somewhat misleading, as they include considerable quantities of such commodities as petrol; or, more generally, the kind of manufactures imported into this country consist largely of semi-finished goods at an early stage of manufacture, a large proportion of whose value, in fact, consists of raw materials which would have to be imported in any case. In order to allow for this, the figures have been examined in detail, and an estimate has been made for each class of imported manufactures of the content of raw materials which could not in any case have been produced in this country. A similar estimate is made with regard to the whole output of British industry (manufacture and mining), including the values created by transport and distribution of raw materials. The figures in Table V give an estimate of the whole production of industrial goods, less their content of raw materials, together with figures of imports of manufactured goods less their content of raw materials not producible in this country.

Table V

Imports and Total Production of Manufactures (excluding raw material content).

(£ million.)

	1913.	1924.	1925.	1927.	1928.	1929.	1930.
Production . .	645	1,690	1,430	1,575	1,585	1,645	1,425
Imports . .	131	202	222	230	225	234	214
Ratio per cent. .	20·2	11·9	15·5	14·6	14·2	14·2	15·0

The money value of production is roughly estimated on the basis of Census of Production figures for 1907 and 1924, together with the Index of Production for other years, using the average values of exported manufactures. The content of primary raw materials contained in imported manufactures is estimated separately for the classes (1) textiles, (2) non-ferrous metals, (3) petroleum products, and (4) all other goods. The first three classes comprise a very large share of the whole imports for manufactures. The proportion of raw materials in the value of final products was known for Great Britain from the figures of the Census of Production. The appropriate proportion was

applied, therefore, to the value of manufactured imports in each class.

Although the ratio of imports to home production of manufactured goods has risen considerably during recent years, yet when deduction is made of the raw material content the proportion has not yet risen to the 1913 level. A considerable amount of the rise in the recorded value of imported manufactured goods during recent years has been due to increasing importations of petrol and non-ferrous metals, both of which are classed as manufactured goods, although their value mainly consists in their raw material content. Even when the crude figures are used (*i.e.* before the figures of imported manufactures and estimated total production are reduced by the amount of their raw material content), it will be found that the proportion of manufactured imports to total production stood at 19·8 per cent. in 1930 as against 25·4 per cent. in 1913.

These figures show other tendencies than the figures of exports. Although we appear to be losing our competitive position in the export trades, we appear to be on the whole retaining our competitive position in the industries working for the home market. They obtain about the same share of the whole internal market as they obtained in 1913 without the aid of a protective tariff, except in the case of the motor industry. If, for the sake of argument, we assume that without the McKenna tariff two-thirds of the motor cars at present produced in this country would be imported (probably an extravagant assumption), the ratio for 1930 would rise from 19·8 per cent. to about 23 per cent.

It is the high ratio of imported manufactures to internal production in 1913 which comes as a considerable surprise. It may be that some of the improvement in the share of the home market obtained by the British producer in post-war years is accounted for by the diminishing relative importance of the staple industries, which are especially subject to international competition. One is led to conclude that this country, which in 1913, at any rate, was in a strong competitive position as regards export trade, found it on the whole advantageous to be participant in a considerable degree of specialisation as between different industrial countries.

If all the manufactured goods which were imported during 1929 had been completely made in this country from the basic raw materials, there would have been a gain of employment (assuming, of course, that there were no repercussions on the export trades) of some 900,000. For 1930 the figure is about

875,000. For 1924, during which year the imports of manufactures were exceptionally low, the figure stood at about 560,000, but for 1913 it was probably about the same as the 1929 figure. The situation may be put this way: that in 1913 we could not have produced all our manufactured imports in this country, even if we had wished to do so, because we should have been faced with a shortage of labour.

4. General Effects of Falling World Prices

To return, however, to the subject of falling world prices and the slump of the export trades. I have attempted to analyse the separate effect of the two factors reducing British exports—the loss of competitive efficiency, and the impoverishment of customers producing primary products. This latter is illustrated by the figures showing a comparison of the Sauerbeck index of the price of unit quantity of food and raw materials and the money value of British exports.

Table VI

	1913.	1924.	1928.	1929.	1930.	1931. 1st. Qr.
Money value of British Exports	65	100	90	91	71	52
Sauerbeck Index	61	100	86	83	70	62

The money value of British exports is clearly related to the money value of agricultural and raw material production as a whole, and the fall in the prices of primary products may be said to have a very direct bearing on our loss of exports.

Nevertheless, I should like for the moment to act as an *advocatus diaboli*, and submit that there are certain advantages, perhaps comparatively small, which appear to have accrued to this country as a result of the recent period of falling prices. The first arises out of the fact that we are a creditor country.

The relevant data are shown in Table VII. The figures of interest receipts from overseas are based on the official estimates prepared at the time, as subsequently corrected. It appears that much of the income earned by this country as financial commissions and so forth is of much the same nature as interest and dividends on overseas securities, and for certain purposes should be included. It is certainly remarkable that this country, in spite of an estimated sacrifice of £1,000,000,000 of overseas securities during the war, should have been able to

restore its pre-war real income from overseas by 1928. It must also be noted that in spite of a considerable estimated loss both of interest and of other receipts in 1930, the real income from overseas owing to the fall of prices had been slightly increased.

TABLE VII

Real and Money Income from Overseas.

(£ million.)

	1913.	1920.	1924.	1928.	1929.	1930.
Interest Receipts (£M.)	210	200	220	270	270	235
Commissions, etc. (£M.)	35	75	75	80	80	70
Total Money Receipts (£M.)	245	275	295	350	350	305
Prices: Food	100	304	169	148	143	125
Raw Materials	100	290	160	136	131	107
General	100	295	163	141	135	114
Real Income at Pre-War Values (£M.)	245	93	181	248	259	268

A subtler method by which this country gains from a period of falling world prices comes from a change in our favour of the terms of trade. The official data are shown in Table VIII. The figure for export prices has been scaled down slightly in view of the conclusions expressed in the Balfour Report; were it not for this correction, the figures would show an apparent movement of

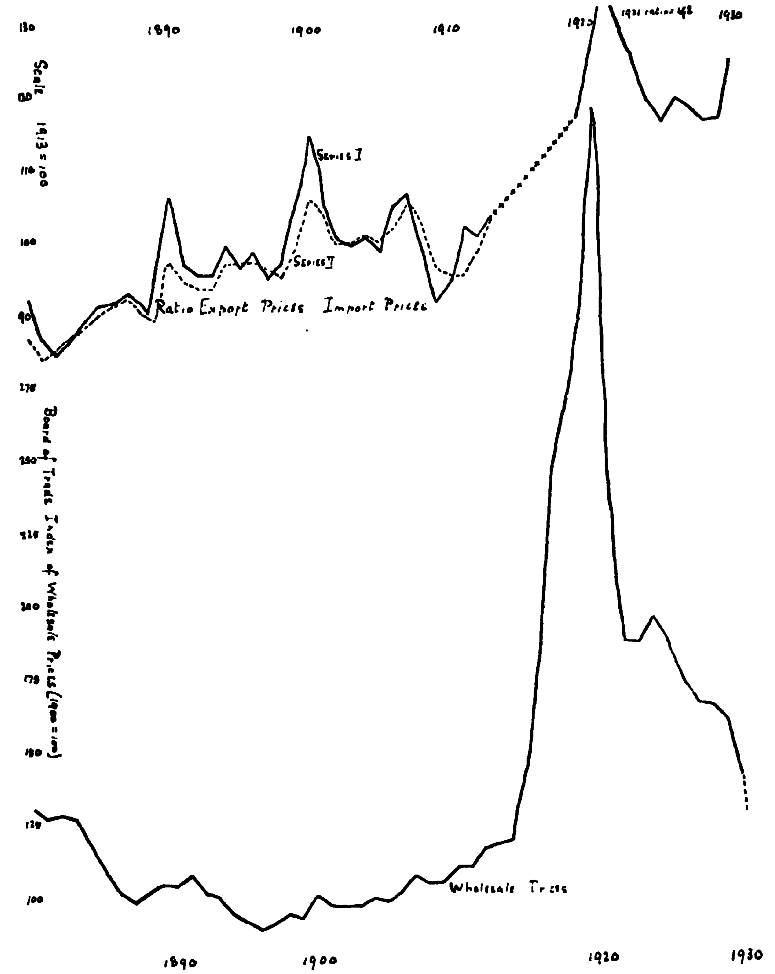
TABLE VIII

Terms of Trade.

	Prices of British Exports (1913 = 100).	Prices of British Imports (1913 = 100.)	Ratio Exports : Imports.
1924	183	155	118
1925	178	155	115
1926	168	142	118
1927	158	135	117
1928	158	137	115
1929	154	133	116
1930	147	117	126

the terms of trade even more strongly in our favour. But it is unwise to base an inductive conclusion on the experience of a few recent years, striking though it may be. An examination of figures back to 1880 bears out the general conclusion that a period of falling prices turns the terms of trade in our favour. From Diagram II it can be seen that, subject to cyclical fluctuations, wholesale prices showed a definite downward trend from the

'seventies to a definite trough in 1896; from that date to 1913 the trend was steadily upwards. The first series showing the export prices: import prices ratio is that calculated by Silverman and published in the *Review of Economic Statistics* (1930). The second series was calculated by Mr. P. K. Debenham (not published), who has kindly placed it at my disposal.



These two series are calculated by very different methods, and their remarkable closeness enables one to state with confidence a broad conclusion—that, apart from certain complex movements connected with the trade cycle, the general trend of the terms of trade was moving strongly in our favour up to 1900, and was stationary or moving against us from 1900 to 1913.

By now it is probably well known that a period of falling prices may be expected to be a period of improving real wages, a period of rising prices to lead to stationary or declining real wages. Recent years have been no exception to this rule. The principal data are concisely summarised in Table IX.

TABLE IX

Wages and Retail Prices, 1880–1930.

	Money Wages.	Retail Prices.	Real Wages.
1880 . . .	77	104	74
1895 . . .	83	83	100
1914 . . .	100	100	100
1924 . . .	193	175	110
1929 . . .	193	164	118
1930 . . .	192	158	121

Whether, on balance, this forcing up of real wages is an advantage or a disadvantage to the country is an exceedingly thorny question. So far as it renders production unprofitable and causes a certain proportion of the country's resources to lie unused, it may be held to be a disadvantage. So far, however, as the maintenance of a high rate of real wages leads to the forcing up of the general level of industrial efficiency, and to a high quantity of output per worker out of which these wages may be paid, it may be considered to be an advantage. The tables which follow will, I think, show that both of these factors have been present, and the weighing up of the gains and losses will be a difficult task. The first problem to be examined relates to changes in the physical productivity of labour during recent years.

5. PHYSICAL PRODUCTIVITY PER HEAD IN INDUSTRY

In *Unemployment, a Problem of Industry*, Sir William Beveridge, after discussing figures showing a considerable rise in real wages since 1913, makes the following statement :—

> "From what source has this rise of wages come? Has there, in spite of the probabilities to the contrary, been an increase in the productivity of labour commensurate with the cost of labour? This point also is dealt with in Professor Bowley's memorandum. While certainty is impossible, several arguments converge to the conclusions: first, that output per head was nearly the same in 1924 as in 1914 in

spite of the reduction of hours; second, that the money cost per unit output of labour has risen between those years by substantially more than either cost of living or wholesale prices. In other words, the increased efficiency of production was probably sufficient up to 1924 to cover the reduction of hours but not the rise of wages as well. Since 1924 the process continued; up to 1929, compared with 1924, output per head may have risen perhaps 4 per cent., but wholesale prices have fallen 18 per cent. and cost of living has fallen 6 per cent. Over the same period, 1924–29, money wages fell by less than 1 per cent. To-day the real cost of labour to the employer for each unit of output may be as much as one-sixth or more higher than before the war."

The authority for the statement that output per head in 1929 had risen perhaps 4 per cent. as compared with 1924 is given in the following footnote :—

"Output per head at the end of 1928 was apparently no better than in 1924 (according to the *London and Cambridge Economic Service Bulletin*, for April 1930, it was 'stationary or decreasing'), that is to say, per week it was no better than in 1914. Real wages per week, however, had risen 17 per cent. reckoned on the cost of living (alike in 1928 and 1929), and something like 40 per cent. reckoned by wholesale prices. The contrast with American experience is glaring."

In reviewing this book in the ECONOMIC JOURNAL of March 1931, Mr. D. H. Robertson comments on these figures, which form, in his words, "the most striking section of the book." He then states :—

"The present reviewer would not have questioned either the demonstration or the second inference had he not read in *The Listener* of January 14 a categorical statement by Mr. J. M. Keynes that our output per head has probably increased by 10 per cent. since 1924 and by 20 per cent. since just before the war—a conclusion in flat contradiction to those results of Dr. Bowley's on which Sir William is chiefly relying. It is curious to recall that in a similar disagreement a few years ago, Mr. Keynes was the pessimist and Sir William Beveridge the optimist; now the rôles appear to be reversed. It is most urgently to be desired that so great a disagreement between such experts on a matter of such first-rate moment should be debated in full. Meanwhile Dr. Bowley's estimates and Sir William's inferences would seem to hold the field."

As mentioned above, the views of Dr. Bowley and Sir William Beveridge are based on the *London and Cambridge Economic Service Bulletin* for April 1930. The issue for June 1930, however, contained some further estimates which were in contradiction to those of the earlier issue. The general conclusion was that "the impression given by these figures is that the average output per head (in quantity and not in value) has increased 4 per cent. from 1924 to 1928 and 7 per cent. from 1928 to 1929." The contradictory nature of this statement may have led some to consider that any precise knowledge on changes in output per head is impossible to obtain.

As Mr. Robertson's formulation puts it, the problem divides itself into two parts: the question of estimating output per head in, say, 1924 as compared with pre-war, and the problem of estimating changes in output per head since 1924. We may first attempt a comparison between 1924 and 1907 on the basis of the Census of Production.

A study was made of all the entries in the 1907 and 1924 Census, where figures for quantity as well as for value were available. On this basis a price index was prepared which was applicable to the final product of British industry as a whole. In two of the most difficult classes, motor cars and electrical goods—difficult because there had been such a great increase in production and change in the nature of the goods—the figures of the Census of Production were supplemented by estimates given in the publications of the Society of Motor Manufacturers and the B.E.A.M.A. respectively. This final index survived well the usual tests which were applied to it.

This is the origin of the index figure, 190, shown below in Table X. The index of changes in prices of primary materials can readily be estimated. The value of primary materials used and hence the final product, free of duplication, were obtained from Mr. Flux's Presidential Address to the Royal Statistical Society (*Journal*, Part I, 1929).

TABLE X

Quantity of Output at Pre-War Values.

	Value 1907. (£M.)	Value 1924. (£M.)	Prices 1924. (1907 = 100.)	1924 at 1907 Values.
Final Product of Industry free of duplication	1,139	2,478	190	1,304
Primary Materials Purchased	464	848	175	484
Net Output	675	1,630	—	820

The "real net output" of industry thus appears to have risen 21½ per cent. between 1907 and 1924. This represents the net output of industry in terms of the purchasing power of "money in general" of 1907. The value of the net output in 1924 in terms of its purchasing power over food and raw materials was, of course, correspondingly greater. The whole number of wage-earners employed in industry rose during the period by little over 10 per cent.; the whole number of persons employed, including salaried earners, rose by 14 per cent.

A somewhat similar calculation was made by Dr. Bowley in "A New Index Number of Wages" (London and Cambridge Special Memorandum No. 28). In his calculation he concludes that real output per head was much the same in 1907 as in 1924, largely owing to the use of a higher index number for the average value of finished industrial products, which is predominantly based upon exports. It appears that an index number based mainly upon exports will over-weight coal and textiles, both of which were at abnormally high prices in 1924, and under-weights the products of the newer industries such as motors and electrical equipment, the prices of which during 1924 had risen much less than the average. This criticism is borne out by the paper by P. H. Douglas and N. A. Tolles in the *Journal of Political Economy*, February 1930. They make a study of British industrial production in 1907 and 1924, using an Irving Fisher index number. Calculating by a quite independent route, they concluded that production in 1924 was 23·5 per cent. higher than in 1907, as against a rise of 21½ per cent. shown in Table X.[1] This may be considered to be a good confirmation.

These two estimates may be considered to confirm the contention that real output per head rose round about 10 per cent. between 1907 and 1924, in spite of the reduction of hours. As is pointed out by the American investigators, the generally accepted view in the past has been that the real volume of British industrial production in 1924 was distinctly lower than before the war, with a considerable increase in the working population. This was based on the Index of Production prepared by Rowe and published by the London and Cambridge Economic Service. But this Index has a very strong downward bias, owing to the exclu-

[1] In this study, however, they show an index figure for the total number of employed persons of 118·3 for 1924 on a 1907 basis, and hence deduce only a small rise in the whole output per head. The total number of persons employed, however, is given in the *Board of Trade Journal* ("Summary of Preliminary Reports on the Census of Production," September 20, 1928) as 6,687,000 in 1907 and 7,613,000 in 1924—a much smaller rise.

sion (through difficulty in collecting data) of all the rising industries such as electrical goods, motor cars and a number of light industries producing finished goods. The Census of Production data must be considered to supersede these.

For changes in physical productivity since 1924 we have much fuller data. The Board of Trade Index of Production, covering nearly two-thirds of the whole field of industrial production, has been available quarterly since the beginning of 1928. The London and Cambridge Annual Index, which has about the same scope in the field of industry, and includes, in addition, building and agriculture, is available as an alternative source. The calculation used by Sir William Beveridge is, as a matter of fact, based on the London and Cambridge Quarterly Index, which has a very much narrower scope than the annual Index, and only covers about a quarter of the field of production. Moreover, this Quarterly Index relatively very much over-weights the declining staple industries, such as coal and textiles. Finally, it is only by comparing the worst quarter of 1928 with the best quarter of 1924 that it is possible to reach the conclusion reached by Sir William Beveridge. The re-examination of this problem, using the fuller Annual Index—in other words, the June 1930 issue of the London and Cambridge Economic Service as against the April 1930 issue—led to the surprisingly different conclusion that output per head rose some 11 per cent. between 1924 and 1929.

This new treatment in the *London and Cambridge Economic Service Bulletin* for June 1930, making use of the Annual Index, is, however, still unsatisfactory. The general Index of Production is compared with the figures of the whole insured population, although in 1929 some 4,000,000 out of 10,500,000 insured persons in employment were engaged upon transport, distribution and personal services. The numbers in these latter categories have been rapidly increasing, and ought not to be debited against industrial production in calculating changes in output per head. On the other hand, the London and Cambridge Annual Index includes agriculture and a figure for a number of dwelling-houses built, which is taken as representing the number of output of the building industry as a whole. In the calculation below, the Board of Trade Index is used. It is found that it does not seriously differ from the London and Cambridge Index after building and agriculture have been excluded from the latter, and it has the advantage of being available quarterly. The official estimate of the number of insured persons in employment is made after deducting numbers not

working through trade disputes or sickness; this procedure is uniform, and does not affect the index of changes in output per head. In the quarterly data for 1930 and 1931, in Table XI, seasonal corrections have been made both in figures of employment and production.

TABLE XI

Physical Productivity of Labour 1924–30.

Mining and Manufacturing Industries.

(Figures in 000's.)

	1924.	1927.	1928.	1929.	1930. 1st Qr.	1930. 2nd Qr.	1930. 3rd Qr.	1930. 4th Qr.	1931. 1st Qr.
All Insured Persons in Employment Aged 16–65 (official estimate allowing for sickness and trade disputes) . . .	9,514	10,003	10,010	10,207	10,061	9,799	9,684	9,511	9,246
Numbers Employed in Building, Transport, Distribution and Services .	3,549	4,014	4,097	4,148	4,182	4,175	4,181	4,134	4,065
Numbers Employed in Manufacture and Mining	5,965	5,989	5,913	6,059	5,879	5,624	5,503	5,377	5,181
Ditto as Index . .	100	100·4	99·1	101·6	98·6	94·3	92·3	90·2	86·9
Index of Production .	100	106·8	105·5	111·8	110·0	104·2	100·1	98·0	94·6
Output per Head . .	100	106·4	106·4	110·0	111·5	110·4	108·6	108·8	109·0

By this calculation output per head appears to have risen a clear 10 per cent. between 1924 and 1929.

During the first half of 1930 there was a fall, which was checked in the third quarter, and followed by a slight rise. This figure for recent months has been the resultant of conflict between two tendencies—a tendency for output per head to rise, owing to the elimination of the less efficient concerns in a depression, and a tendency for the output per head to fall, owing to short-time and below-capacity working and general disorganisation in the more efficient firms.

Even over so short a period as 1924–29 there is a considerable change in the relative importance of different industries. The former objection holds that an index number of industrial production calculated in the ordinary way still tends to over-weight the declining industries. To take an example, the remarkable growth of the motor, rubber, paper and wireless industries, the output of which increased during that period by 74, 213, 43, and 96 per cent. respectively, is not fully recorded in the Index on the 1924 weights. Very considerable changes in relative prices should also be taken into account. An Irving Fisher Index has been calculated using weights based on the relative quantities produced and relative

prices of 1929 rather than 1924. The new weighting raises the index number from 112 to 117. The geometric mean of the two index numbers is 113·8. This figure may be taken as a measure of the increase in "real want-satisfying power" of British industry between 1924 and 1929.

Calculations relating to production of 1930 show, however, that the index number calculated with the new set of weights is not very different from the old.

It will be noticed that the rise in the physical quantity of output per head has been distinctly greater than the rise in real wages, which appear to have risen (taking into account all such factors as earnings rising more rapidly than rates, etc.) by 10 per cent. between 1914 and 1924, and 8 per cent. between 1924 and 1929. Against these rises may be credited the increase in physical productivity per head, and also the movement of the terms of trade in favour of British industry (see above). This last is of considerable importance, because a large part of the index of real wages represents the purchasing power of wages over food imports.

It appears from figures available that there was no such strong upward trend of output per head in the years before the war. Rowe's index, we have seen, is not applicable to the measurement of changes between 1907 and 1924. But we may assume that it is applicable to the measurement of changes in production over the short and comparatively undisturbed period 1907–13. The employment figures are derived from the Trade Union unemployment percentages, taking into account the increase of population. We obtain the following data.

TABLE XII

Changes in Output per Head, 1907-13.

	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Output . . .	100·0	93·0	96·5	96·8	101·0	103·3	107·2
Employment . .	100·0	96·5	97·4	101·4	104·2	104·1	106·7
Output per Head .	100	96	99	95	97	99	100

As the staple industries which go to make up Mr. Rowe's index were not declining in relative importance over this period, there is not likely to be any bias in the index number. Comparison of these data with those of post-war years certainly

appears to lend support to the view advanced by Mr. Rowe elsewhere, that a period of high real wages, at the cost of causing unemployment, may lead to a remarkable forcing up of industrial efficiency which might not otherwise have been attained.

6. Output per Head in Non-Manufacturing Industries

It is sometimes said that the recent increase in productivity in manufacturing industry is more than counter-balanced by the increasing complexity and costliness of distribution and by other non-manufacturing industries; in other words, that the former is reflected in low wholesale prices but the latter is reflected in comparatively high retail prices. Tables XIII and XIV are interesting in this respect.

Table XIII.

Quantity of Goods sold per Employee in Co-operative Stores.

	1914.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
Money Value of Sales per Employee (£) .	1,141	2,448	2,196	1,711	1,690	1,755	1,875	1,821	1,819	1,773	1,737
Index of Quantity of Goods sold per Employee . . .	110·6	92·6	92·6	96·0	96·9	100	106·1	107·7	110·3	109·6	109·3

Table XIV

Output per Head in Building and Contracting.

	1924.	1925.	1926.	1927.	1928.	1929.
Money Value of Output (£M.)	270	317	331	311	308	328
Insured Workers Employed (000)	722	769	805	855	846	846
Money Output per Head (£ per annum) . . .	374	412	411	364	364	387
Index of Cost . . .	100	105·1	104·8	99·1	89·3	84·6
Real Output per Head .	100	105	105	98	109	122

It is difficult to judge how far the methods of working in the co-operative system are representative of those in the retail trade in general. The decline in sales per employee as compared with pre-war is probably associated with a very considerable reduction of hours, but since 1920 there has been a fairly steady rise in the goods sold per employee.

The figures of the building trade are interesting. The money

value of building from year to year is based on the value of building plans passed. The figures are carefully corrected, so as to convert the value of plans passed in a year to the value of work done during the year.[1] The value of repair work is known for 1924, and is carried forward by estimates of the increase in the number of buildings, and the addition to be made for contracting as opposed to building work is estimated from the ratio of the number of employees in the contracting trades to the number in building trades. The index of cost is based on the average cost of various types of houses, and may possibly not be representative of the cost of industrial buildings.

The real output per head in building appears to rise to a very high figure for 1929. It is not impossible, however, that the very considerable speeding up of building practice which is taking place has achieved this. The low output per head for 1927 is probably associated with "short-period increasing cost" consequent upon the heavy housing programmes of that year, which were considerably cut down upon the reduction of the subsidy.

Finally, the London and Cambridge Index of agricultural production, together with the Censuses of 1908 and 1925, may be compared with the figures of employment.

TABLE XV

Output per Head in Agriculture.

	1908.	1925.	1928.	1929.	1930.
Number of Labourers (000)	1,100	925	890	888	857
Number of Farmers and Small-holders (000)	300	360	355	353	350
Total Numbers Engaged in Agriculture	1,400	1,285	1,245	1,241	1,207
Quantity of Output	100	100·2	103·4	104·6	96·8
Quantity per Labourer	100	119	127½	129½	124
Quantity per Person Engaged	100	109	116	118	112½

[1] For a number of towns quarterly figures of plans passed are available. These are converted into a uniform series by the use of geometrical averages, and the seasonal variations removed. It is assumed that a building is completed six months after the plans are passed—in other words, that one-fourth of the work of a plan is carried out in the quarter in which the plan is passed, one-half in the next quarter, and the remainder in the next quarter. From these data the ratio of the work done in a year to the plans passed in the same year can be calculated, and this ratio is applied to the general figure.

This is clearly due to a substitution of more productive for less productive crops and stock.

A number of figures are included, such as those of liquid investments and cash, because they may be of some interest, although they are not relevant to the main thread of inquiry. The figures of stock in trade and work in progress are of importance, representing as they do about a third of a year's output.

7. Unemployment

Table XVI shows the rise in unemployment up to date, corrected both for seasonal changes and for the administrative changes brought about by the Act of 1929. It is difficult to judge how far the rise even now shows signs of slackening.

Table XVI

Unemployment Corrected for Seasonal Variations and for Administrative Changes (000's).

	1929.	1930.	1931.
January	1,404	1,504	2,571
February	1,455	1,607	2,649
March	1,267	1,765	2,684
April	1,337	1,821	2,663
May	1,318	1,905	2,785
June	1,300	2,001	—
July	1,272	2,086	—
August	1,259	2,105	—
September	1,289	2,232	—
October	1,313	2,281	—
November	1,338	2,304	—
December	1,603	2,706	—

An attempt has been made above to show the amount of unemployment which is attributable to the loss of exports since 1929. As the loss of exports continues, this will presumably be a factor steadily increasing unemployment.

What other factors may be considered to account for that part of the increase of unemployment which is not attributable to loss of exports? If it were the case that we have had this loss of exports, discussed above, together with a general stability of demand in the internal market, the rise of population and the inflow of new workers into insurance would in themselves be a factor making for unemployment. For a number of years since

1923 industry and commerce had been absorbing some 100,000 to 150,000 workers per annum, which just counteracted the increase of the insurable population, leaving unemployment roughly constant. Some figures bearing on this problem are given in Table XVII.

TABLE XVII

Numbers seeking Insurable Employment (aged 16–64).

(Figures in 000's.)

	Males.	Females.
Numbers in July 1927	8,580	3,204
New Entrants(+) to Insurance and Exitants(−): 1927–28	+429–386	+358–304
„ „ „ „ „ „ 1928–29	+423–295	+372–293
„ „ „ „ „ „ 1929–30	+430–253	+377–242
Numbers in July 1930	8,932	12,406
New Entrants 1930–31	+409	+333

The insurable population increased in 1929 and 1930, partly owing to the effects of the Unemployment Insurance Act which came into force in March 1930. Although there is not much evidence of new persons being brought into insurance, there was a very considerable reduction in the number of exitants. This must not be entirely attributed to the new Act, because it may in part reflect diminishing opportunities for insured workers to leave insurance and set up on their own as shop-keepers, jobbers, etc., or, in the case of females, it may represent the postponement of marriage consequent upon bad trade. Similar enactments in 1928 are said to have had a less effect in this same direction. The figures of exitants for 1930–31 will be interesting when they become available. But at any rate it appears to be difficult to attribute much more than 100,000 of the recent rise in unemployment to these factors. It will be noticed that the figure for new entrants for the last year shows quite an appreciable reduction. This is partly due to diminished births round about 1915, considerably counteracted by diminishing death rates.

8. PRODUCTION AND CONSUMPTION

Data below show the extent to which employment has been affected by the falling off of capital programmes. An index number has been prepared representing changes in the output of capital goods. This is based on employment in building, contracting and engineering, with appropriate allowances for changes in output per head; shipbuilding tonnage under con-

struction; and the output of electrical machinery and cables. It will be seen that this index in effect does cover practically the whole field of capital work, although it is impossible to estimate how much of this product is required to meet depreciation.

TABLE XVIII

Production in 1924.

(£ million.)

Capital Goods and Buildings	610	
Exports Valued at Works	757	
Of which Capital Goods . . .		62
Consumption Goods	1,385	
	2,690	

Table XVIII shows the data on which the index number may be based. Table XIX shows the new index number of output of capital goods, including building, while the general Index of Production has been altered so as to include an estimate of the quantity of building work done, based upon the figures in Table XIV. Quantities of capital goods and goods for export are then deducted from the index, and the residue is taken to represent the output of goods for consumption. The figures are corrected for seasonal changes.

It thus appears that of the whole fall in production of 16·6 units between 1929 and the first quarter of 1931, exports and

TABLE XIX

Production and Consumption, 1924–31.

	1924.	1927.	1928.				1929.				1930.				1931.
			(i.)	(ii.)	(iii.)	(iv.)	(i.)	(ii.)	(iii.)	(iv.)	(i.)	(ii.)	(iii.)	(iv.)	(i.)
Index of Production (including Building) . .	100	108·1	109·0	109·5	105·9	110·6	111·1	117·2	116·7	117·4	111·3	109·1	105·7	103·1	99·8
Output of Capital* Goods (including Building) . .	100	111·1	111·3	114·3	114·5	118·8	119·0	126·9	130·6	129·7	127·8	125·9	122·0	116·3	109·3
Do. as percentage of all Production in 1924 . .	22·7	25·3	26·0	26·0	26·0	27·0	27·0	28·8	29·6	29·4	29·0	28·6	27·7	26·4	24·8
Exports (excluding Capital Goods) as percentage of 1924 Production	25·8	25·2	25·5	25·0	25·4	27·1	26·5	26·2	27·1	27·4	24·7	20·5	20·1	19·4	15·8
Deduced Output of Consumption Goods . .	51·5	57·6	57·8	58·5	54·5	56·5	60·9	62·2	60·0	60·6	60·6	60·0	57·9	57·6	59·2
Do. as Index .	100	112	112	114	106	110	118	122	116	118	118	116	112	112	115
*Exports of Capital Goods as percentage of Output . . .	10·2	13·8	13·3	13·0	14·3	14·0	13·3	13·6	12·6	13·1	12·0	14·3	13·7	14·5	12·1

capital goods accounted for all but 1·7 units. Table XI shows that the numbers employed in non-manufacturing industries fell during the same period by 83,000 only, of which 56,000 have already been accounted for under building.

In other words, employment in the consumption industries has scarcely decreased since 1929. The rise in unemployment must therefore be entirely attributed to the loss of exports, the contraction of the capital goods industries, and the increase of the insured population. Up to 1929 this latter factor was neutralised by expanding employment in both the capital goods and consumption industries (particularly distribution and services).

It is certainly remarkable to how small an extent consumption has fallen off since 1929. But this is borne out by data relatin to individual products. The output of motor cars in the first quarter of 1931, estimated by the number of vehicles licensed less imports plus exports, is seen to be only one or two points lower than in the year before, and somewhat higher than in the first quarter of the year 1929. It is certainly remarkable that the output of motor cars in this country should remain at such a high level, as in U.S.A. the output of motor cars has by now been almost halved from the 1929 figure.

These high consumption figures perhaps put a different interpretation on the high quantity of imported food-stuffs and manufactures consumed in this country during recent months. We have taken advantage of the immense movement in our favour in terms of trade. We continue importing on much the same level as before, letting our exports fall to half and letting our credit balance of international payments disappear. Germany may be taken as an example of another country which has enjoyed a considerable move in its favour in terms of trade, but it has used this movement in a very different way.

These figures of consumption are also broadly borne out by the figures of retail sales which have been available for some months. Excluding food-stuffs, where there is known to have been a very heavy fall in retail prices, we find that both for the last two quarters of 1930 and for the first quarter of 1931 the money value of retail sales has averaged about 3 per cent. below the level of the period a year previously. In view of the fact that there has been an appreciable fall in prices of commodities other than food, this indicates a maintenance or an increase of the quantity of consumption. This is not in discord with the figures given

above in Table XIX, because the returns from the retail stores indicate that there has been a very considerable reduction in stocks. This depletion of the stocks of finished goods may in due time be a very potent factor in causing industrial recovery, in the same way that the accumulation of stocks of raw materials is a factor discouraging recovery in other countries.

These studies may be concluded with a note on the quantitative estimation of "investment." The main factor remaining to be enumerated is the balance of international trade. This is shown in Table XX.

TABLE XX

Revised Estimates of the Balance of Trade (£ million).

	1913.	1920.	1924.	1925.	1926.	1927.	1928.	1929.	1930.
Credits:									
Exports	525	1,334	801	773	653	709	724	729	571
Interest on Investments.	210	200	220	250	270	270	270	270	235
Shipping Services . .	95	340	140	125	120	140	130	130	105
Financial and Other Services . . .	35	75	75	75	75	75	80	80	70
Total . . .	865	1,949	1,236	1,223	1,118	1,194	1,204	1,209	981
Debits:									
Imports Retained . .	659	1,710	1,137	1,167	1,116	1,095	1,076	1,111	958
Varying Items (+ credit, − debit):									
Net Government Receipts . . .	—	—	−25	−11	+4	+1	+15	+24	+21
Net Export of Gold .	−24	+41	+12	+12	−12	−4	−7	+16	5
Total Net Credit:	182	280	85	57	−6	96	136	138	39
New Issues Floated for Overseas . . .	198	59	135	88	122	139	111	95	109
Net Efflux (−) or Influx (+) of Money not through New Issues .	+16	−221	+50	+31	+128	+43	+8	−43	+70

In this table the estimates published annually by the Board of Trade have been brought together, but allowances have been made for a number of subsequent corrections also prepared officially by the Board of Trade. Usually as each of these corrections are prepared they are only carried back for a year or so; in this table an attempt has been made to carry them back to the beginning of the series, and so obtain a comparable series of figures since 1920.

The quantity of fixed capital goods produced has been estimated in Table XIX. The money value of that part of it represented by building and contracting work can be estimated as in Table XIV, but it is much more difficult to obtain a suitable price factor to apply to that part which is represented by mechanical and electrical equipment. A considerable part of the output of

fixed capital goods must be set off against depreciation and maintenance. For the country as a whole (including such large items as the maintenance of the roads and railways, which do not appear in the Inland Revenue maintenance allowances) we must estimate round about £250,000,000 in 1924, rising to perhaps £300,000,000 in 1929. The whole output of fixed capital goods in 1924 plus imports minus exports appears to have been £560,000,000 in 1924, rising to £610,000,000 in 1929. For 1907 the figure appears to have been £250,000,000, of which about £100,000,000 were required to meet depreciation.

C. G. CLARK

BRITISH FOREIGN INVESTMENTS IN 1929

In March 1929 I published the results of a first inquiry into the amount of British capital invested abroad and the volume of annual repayments to this country. This inquiry was a pioneer attempt of a tentative nature, and it was realised at the time that as the problem became subject to closer examination in later investigations, more systematic methods would have to be used and the field of inquiry more clearly defined in order to ensure a fair degree of accuracy. Consequently, in my second inquiry, the results of which were published last year in the June issue of the ECONOMIC JOURNAL, pending the elaboration of a systematic method I decided to confine myself to one class of security only, namely, the bonds and stocks of Foreign and Colonial Governments, the British holdings of which could be determined with some degree of accuracy.

The present essay, however, attempts to survey the main field of British investment overseas. The results now published have been obtained by methods which have been devised to ensure their ready application to all the classes of securities examined, and will probably be applied with but little change in further inquiries of the same nature. It will therefore be possible in the future to compare results from year to year, and so to indicate periodically the changes that take place in the nature of our investments overseas. Thus a comparison is made later on in this article of our investments in Foreign and Colonial Government and Corporation Stocks for the years 1928 and 1929, estimated on comparable bases. It is hoped in later investigations to make comparisons which will cover the main field of investment.

OBJECTS OF THE INQUIRY

These investigations were originally inspired by a desire to arrive at an estimate of the volume of repayments coming into this country through the operation of sinking funds and maturities, so as to make it possible to separate the automatic portion from the real savings of the nation. In order to do this, however, it became necessary to collect information which also threw light upon other important aspects of our foreign investments. The

results published in this essay, therefore, include as regards the securities examined: (*a*) the total nominal amount of British capital overseas outstanding in 1929; (*b*) the income derived therefrom; (*c*) the volume of repayments in 1929; and finally, (*d*) the "new money" saved for overseas investment in 1929, this being regarded as the British subscription to new issues less the sum repaid during that year.

FIELD OF INQUIRY

The investigations undertaken cover British investments in the bonds and stocks of Foreign and Colonial Governments and Corporations, interest payments on which are made in London, and in the securities dealt in on the London Stock Exchange of companies, both British and foreign, operating abroad. The whole field of British foreign investments is therefore covered, with the exception of (1) individual private investments, (2) companies operating abroad whose securities are not officially dealt in here, (3) the bonds and stocks of foreign Governments not quoted here. For example, although it is seldom the practice of residents in the United States to subscribe to the sterling portion of a loan issued both in London and New York, British nationals frequently subscribe for or purchase large quantities of the dollar portion of such an issue. There is also a large and increasing investment by our nationals in United States securities issued and quoted only in New York, largely owing to the increasing activities of the agencies of United States banks and bond-selling houses in London. In addition to this omission, the securities of insurance companies and many financial trusts deriving a major portion of their income from abroad have also been omitted, since the operations of these companies usually take the form of investments in the securities of British registered companies or in Government and Corporation stocks already included in these investigations. It is recognised, however, that owing to the increasing interest in dollar securities displayed by financial trusts, this omission may give rise to an appreciable error.

METHOD

The securities examined fall naturally into three broad categories, each requiring separate analysis. They are:

1. **Securities of Foreign and Colonial Governments and Corporations.**

2. Securities of British Companies operating abroad and registered in the United Kingdom.
3. Securities of Companies both operating and registered abroad, but dealt in here.

This analysis was only made possible by the information supplied to me by some seventy banks and issuing houses and well over a thousand companies, and I should like at this point to express my appreciation of the very helpful spirit in which these banks and companies have assisted me.

GROUP 1.

Foreign and Colonial Government and Corporation Stocks

The method applied to this group of securities was explained in some detail in the ECONOMIC JOURNAL of June 1930. Particulars were obtained from banks and issuing houses in respect of each foreign or colonial loan, interest on which was paid in London, regarding the total sinking fund payment made in the United Kingdom in 1929; the total interest paid in the U.K. during 1929, and the proportion of such interest paid free of British income tax.

For further information the reader should refer to the above-mentioned article.

The results obtained for 1929 are summarised in the following tables and compared with the corresponding results obtained for 1928:

TABLE I

Proportion in 1929 of total Interest paid in London, tax deducted, on certain classes of Investments, and comparison with 1928.

	1929.	1928.
Dominion and Provincial Government Securities	90·2[1]%	90·2%
Dominion and Colonial Corporation Stocks .	91·4	91·1
Foreign Government Stocks . . .	53·6	54·8
Foreign Corporation Stocks . . .	76·6	76·3

[1] As explained in my article of last year, the high foreign percentage in this group is due largely to payments made in London in respect of the foreign tranches of international issues.

Table I reveals little change in the proportions of British and foreign holdings for the two years under consideration, except in foreign Government bonds and stocks. Indeed, it is quite clear from other information obtained for previous years that foreign nationals are gradually buying back the bonds issued

in this country on behalf of their Governments. In addition to this continuous repurchase of bonds, Table II shows that the repayments in this group are becoming increasingly heavy pending the extinction of old loans, mainly of the Argentine, Brazil, Chile and China, as the cumulative arrangements of sinking funds through which these repayments are annually made take effect. For these reasons the figure for British capital shows a decline in this group from £324,008,000 in 1928 to £312,792,000 in 1929, and it is certain that failing substantial new investment in this class of security, this figure will continue to decline more rapidly from year to year. The decline in 1929, however, was more than made up by increasing investment in the securities of Colonial Governments. Thus, in this group, in spite of a heavy repayment of £17,782,000 in 1929, the figure for British capital increased from £944,497,000 in 1928 to £970,551,000 in 1929, entirely as a result of the Colonial issues made in London during 1929.

TABLE II

Table showing the nominal amount of British Capital outstanding invested in 1929 in certain classes of Securities, the Income derived therefrom, the volume of Repayment, and comparison with similar results for 1928.

(£000's.)

	Capital.[1]		Interest.		Repayment.[2]	
	1929.	1928.	1929.	1928.	1929.	1928.
Colonial Govts. .	970,551	944,497	41,994	39,770	17,782	4,410
Colonial Corpns.	90,887	91,453	4,422	4,050	2,502	860
Foreign Govts. .	312,792	324,008	16,205	16,048	9,404	8,277
Foreign Corpns.	38,195	40,491	2,040	2,028	737	2,029
Total . .	1,412,425	1,400,449	64,661	61,896	30,425	15,576

[1] The figures for capital include British subscriptions to issues floated in the year under consideration, but on which a full year's interest would not be due until the succeeding year.

[2] The figures for repayment exclude stock converted during the years under consideration.

It will be observed that despite the fact that the figures for British capital invested in the securities of Colonial Corporations and Foreign Governments and Corporations were less in 1929 than in 1928, yet the corresponding income showed an increase for each group. It should be remembered, however, that the interest in the year 1929 is more affected by the repayments in 1928 than by those in the same year. Table II shows that these

were only £15,576,000 in 1928, as compared with £30,425,000 in 1929. Again, a full year's interest was not payable until 1929 on most of the loans issued in 1928, a year of heavier investment. These facts, in conjunction with the further fact that the rate of interest is higher on the recently issued loans than on matured or expiring loans, account for the apparent paradox of an increased income accruing from decreased capital investments in three of the above groups of securities. Table III gives a more detailed comparison of the repayments in 1928 and 1929.

TABLE III

Analysis and Comparison of Repayments for the years 1928 and 1929.

(£000's.)

Group.	Sinking Fund.		Maturity.		Optional Redemptions.[1]		Total.	
	1928.	1929.	1928.	1929.	1928.	1929.	1928.	1929.
Colonial Govts.	3,885	3,995	525	13,787	—	—	4,410	17,782
Colonial Corpns.	552	744	308	1,758	—	—	860	2,502
Foreign Govts.	8,277	8,907	—	—	—	497	8,277	9,404
Foreign Corpns.	591	737	—	—	1,438	—	2,029	737
Total	13,305	14,383	833	15,545	1,438	497	15,576	30,425

[1] The figures given as Optional Redemptions represent loans redeemed by Governments and Corporations prior to the final date of maturity.

It will be seen that the large increase in repayments in 1929 over that calculated for 1928 was, in the main, due to the heavy maturities of loans of Colonial Governments in 1929. These amounted to £13,787,000, for which the maturities of the loans of Australian States were largely responsible. It should, however, be borne in mind that a substantial proportion of this sum was derived from funds raised by new Australian issues in 1929, and thus does not constitute an effective repayment to Britain as a whole, as distinct from individual British stock-holders.

Companies operating abroad.

This investigation analyses the securities officially marketable here, of about 3,000 companies operating abroad. The capital of each of these companies was set down separately for British registered and foreign registered companies, classified in accordance with the divisions made in the Stock Exchange Official Intelligence (*e.g.* Foreign Rails, Mines, Rubber, to name only a few), and was further divided into two main categories repre-

senting the share and loan capital respectively. This latter division is essential, since the proportion of British holding is generally higher and of a different character in the debenture group than in the share group, and also because a larger sample of information is obtainable regarding the loan capital of companies registered abroad. In any case this division is necessary for the calculation of the income derived from British investments in these securities, since, unlike fixed interest bearing securities, dividends on share capital fluctuate widely from company to company, group to group, and year to year.

For these reasons a sample which did not differentiate between the two kinds of capital would yield altogether misleading results.

Information was obtained from companies relating to the amount spent on the redemption of capital in 1929; the proportion of registered share capital held by residents of the United Kingdom at the end of 1929, and the proportion of loan capital so held.

This information made possible the calculation, among other things, of the British holdings of the total capital examined, and the British portion of total repayment. Information regarding dividends and interest during 1929 was derived from the Stock Exchange Official Intelligence and Official List.

It is important to note some of the limitations of the above method of procedure.

Little information is obtainable regarding the proportions of *bearer* securities held by British residents, except in a few instances, such as the Canadian and Mexican Eagle Companies and the bearer securities of a few Swedish companies, coupons of which are payable to some extent in London. Consequently there is no alternative but to apply the British percentage obtained from a sample of the registered capital in any group to the bearer capital of the same group. In view of the greater popularity of the bearer security on the Continent and in the U.S.A. than in Britain, it is probable that the foreign holding of bearer securities is somewhat higher than the foreign holding of the corresponding registered security. This has more particular reference to the securities of companies registered abroad, since in this group the bearer security figures more prominently.

The practice of holding securities through nominees is another obstacle to accurate calculation. It is certain, for example, that there is a substantial foreign holding of securities registered in the names of English banks and other nominees, and it is equally certain that there is a still more considerable British holding of

dollar securities in the names of American banks and other companies. There is a distinct danger that this practice, gradually becoming more widespread, will render it difficult for decisive conclusions to be drawn from future investigations of this nature.

It has already been noted that Insurance Companies and many Financial Trusts have been omitted from the scope of these investigations, since their operations usually take the form of investments in other companies already considered. Double counting has to a large extent also been avoided by excluding the share capital of companies more or less completely controlled by others. There is, however, a considerable amount of cross-holding between companies (for example, in the Mining group) with which it has not been possible to deal in this way, and which clearly leads to an over-estimate, particularly in the case of interholding between British registered companies.

GROUP 2.

British Companies operating abroad.

A company is taken to be operating abroad if its main plant and equipment are abroad. Holding companies investing their funds in the securities of companies not already examined also come within this category. A number of large companies, however, particularly in the group covered by Commercial, Industrial, etc., do extensive business both at home and abroad. Owing to the difficulty of separating out the portion of the capital of these companies that can be considered to be invested abroad, not all of these companies have been included in the investigation. A difficulty of the same kind occurs with regard to the main body of shipping companies whose vessels travel to and from Great Britain. In this case again account has been taken of those shipping companies only whose vessels voyage almost entirely in foreign waters.

It is recognised that these inevitable omissions are serious, since these companies do derive a considerable part of their income from abroad.[1] On the other hand, almost every British company operating abroad maintains an expensive London head office or agency, which absorbs part of the company's capital. This discrepancy, for which no reliable adjustment can be readily made, tends to neutralise the former source of error. The table

[1] As regards the annual balance of payments, a calculation of the net income from abroad derived by British shipping companies is unnecessary, since it is included in the annual estimate of the gross receipts of those companies made by the Board of Trade.

given below should therefore be studied with these limitations in mind:

Table IV

Table showing the nominal amount of British Capital invested in Companies operating abroad and registered in the U.K., the Income derived therefrom, and the volume of Repayments in the year 1929.

(£000's.)

Type of Company.	Share Capital.	Divi-dends.	Loan Capital.	Inter-est.	Repayment. Sinking Fund.	Rate %.	Matur-ities.
Dom. & Col. Rails	1,645	20	22,636	1,157	28	0·1	794
Indian Rails	23,088	1,980	48,150	1,828	83	0·2	876
Ind. Rly. Annuities	—	—	26,187	1,296	1,114	4·3	..
American Rails	800	37	800	32	—	—	—
Foreign Rails	212,226	11,450	166,518	7,841	593	0·4	—
Banks & Disct. Coys.	30,368	3,248	—	—	—	—	—
Breweries	4,992	395	911	32	—	—	—
Canals & Docks	776	?	1,000	60	—	—	467
Commercial & Industrial	55,868	4,025	21,037	1,163	437	2·1	52
Elec. Lighting & Power	8,886	888	7,542	480	21	0·3	—
Fin., Land & Investment	94,392	7,333	29,363	1,201	855	2·9	711
Gas	8,565	716	2,339	95	89	3·4	—
Iron, Coal & Steel	6,108	266	1,580	107	38	2·4	—
Mines	74,354	6,950	3,393	225	104	3·1	132
Nitrates	6,449	266	2,497	179	210	8·4	—
Oil	99,626	14,600	13,224	647	508	3·8	290
Rubber	82,223	6,549	5,712	370	12	0·2	47
Shipping	11,880	782	4,593	240	294	6·4	—
Tea & Coffee	37,904	4,662	2,668	161	22	0·8	—
Telegraphs & Telephones	23,626	2,726	4,540	270	158	3·5	—
Tramways & Omnibus	14,382	488	19,070	850	153	0·8	398
Waterworks	3,447	293	1,446	75	2	0·1	—
Total	801,605	67,674	385,206	18,309	4,721		3,767

Total Loan and Share Capital	1,186,811
Total Income	85,983
Total Repayment	8,488

The results shown in the above table have been arrived at with the aid of returns from companies covering about 65 per cent. of the total capital analysed. This percentage of course varies from group to group, fluctuating from nearly 100 per cent. for the Tramways and Omnibus Group to about 30 per cent. in the case of Banks and Discount Companies. In every group, however,

the size of the sample has been sufficiently large to ensure a tolerable degree of accuracy, subject to the limitations mentioned, both in the method and scope of the inquiry.

Total British loan capital outstanding in 1929 was £385,206,000 and repayments amounted to £8,488,000 during that year. The percentage of repayment is affected in a haphazard manner by maturities from year to year. If, however, we consider the regular repayment through the operation of sinking funds, the average percentage repaid is 1·23 per cent. This percentage varies from group to group, being 8·4 per cent. in the case of Nitrates and 0·1 per cent. in the case of Colonial Railways in 1929. Indian Railway Annuities have been split up into two portions, representing interest and repayment of principal respectively, the figures for loan capital being based upon the former.

The income derived from a total British loan and share capital of £1,186,811,000 was £85,983,000 in 1929, or, roughly 7¼ per cent. Interest was slightly under 5 per cent. of the total loan capital in these groups, and dividends distributed amounted to 8·4 per cent. of the total share capital. The latter vary in important groups from 14·65 per cent. in the Oil group and 9·35 in the Mining group, to 7·96 per cent. for Rubber and 5·4 per cent. for Foreign Rails.

About one-half of the loan and share capital examined in the above table is absorbed by railways and other public utility undertakings, whilst British railway enterprises in foreign countries alone account for nearly one-half of the loan capital and more than one-quarter of the share capital. This, of course, represents almost entirely old investment of the nineteenth century, during which period the British company was the favourite medium for the investment of British capital overseas. The high rate of income tax now payable by British registered companies as compared with companies registered abroad, and the rapid industrialisation of foreign countries has now left but little scope for the further development of this method of investment, and it will be observed that comparatively little headway has been made by the British company even in the newer public utility enterprises abroad, such as Electric Lighting and Power, Telegraphs and Telephones, despite the fact that these utilities absorb an enormous amount of capital in South America.

We therefore turn to the avenue of investment now offering a wider scope to the British investor, namely, the company registered and operating abroad.

GROUP 3.

Companies registered abroad.

Analysis of British investments in this group is more difficult than in either of the two preceding groups investigated. The mass of securities examined is of an extremely miscellaneous character, and the type of company to which they belong varies from the company which is virtually British owned and controlled (*e.g.* many of the mining companies registered in South Africa) to the company in which British interests are insignificant. Thus many American securities, despite the fact that only a very small percentage is held by British residents, are given a quotation on the London Stock Exchange simply because of their volume and market activity; these are consequently included in the analysis. On the other hand, many foreign companies have also made sterling issues. Consequently it is extremely difficult to collect a sample which is really representative of the mixture of securities analysed.

Wherever possible, separate samples of sterling and non-sterling issues have been used in arriving at the results. This is important, since naturally the British holding will be higher amongst sterling than foreign issues. Unfortunately, owing to the difficulty of obtaining information about the latter (in which bearer securities figure so prominently), many gaps were inevitable.

Wherever possible, the shares of no par value have been included at the figure given in the latest balance sheet of the company.

These comments should be borne in mind in a perusal of the table on p. 380.

Of a total nominal share capital examined of £2,623,374,000 for companies registered abroad, samples have been collected relating to £2,148,271,000. British holdings in this latter amount were calculated at 16·62 per cent. This general percentage was also applied, in arriving at the figure for British share capital, to the total capital in those groups in which sufficient information was lacking. The same percentage, of course, must not be taken as applying to each of the blank groups (*e.g.* to Foreign Rails, where the percentage British held is appreciably higher).

Total repayments amount to £9,593,000, of which £5,606,000 was repaid by the operation of sinking funds. The rate of repayment by sinking fund varied in important groups from 5·5 per cent. for Mines to 0·4 per cent. in the case of Dominion and Colonial Railways. The figure of £202,000 repaid in the Oil group was due entirely to the redemption by sinking fund of Preference

share capital of the Mexican and Canadian Eagle Companies. The largest maturities occur in the Mining, Tramways and Omnibus, and Iron, Coal and Steel groups.

Table V

Table showing the nominal amount of British Capital outstanding invested in Companies registered and operating abroad, the Income derived therefrom, and the volume of Repayments in 1929.

(£000's.)

Type of Company.	Share Capital.	Dividends.	Loan Capital.	Interest.	Repayment. Sinking Fund.	Repayment. Rate of Repayment by S.F. %.	Repayment. Maturity.
Domn. & Col. Rails.	55,287	5,501	161,127	6,491	626	0·4	—
American Rails .	9,671	796	18,519	615	—	—	430
Foreign Rails [1] .	?	?	75,709	4,078	888	1·2	—
Banks & Disct. Coys.	29,982	2,532	12,999	807	216	1·7	—
Breweries [1] . .	?	?	40	2	—	—	—
Canals & Docks [1] .	1,742	1,175	2,436	52	—	—	—
Commercial & Industrial . .	70,648	7,348	21,464	1,646	723	3·4	592
Elec. Lighting & Power . .	11,820	600	31,002	1,724	650	3·1	494
Fin., Land & Investment . . .	24,416	1,067	29,965	1,603	1,011	3·4	165
Gas [1] . . .	?	?	392	23	—	Share Capital repaid	66
Iron, Coal & Steel .	31,905	1,669	8,893	635	268	3·0	638
Mines . . .	82,937	13,523	4,085	246	223	5·5	825
Nitrates . .	—	—	3,195	223	137	4·3	—
Oil . . .	23,321	634	—	—	202	Pref. Capital repaid	-
Shipping . .	4,183	228	2,445	155	51	2·1	—
Telegraphs & Telephones [1] . .	?	?	17,768	840	387	2·2	—
Tramways & Omnibus . . .	10,108	657	10,794	533	224	2·1	777
Waterworks [1] .	?	?	1,953	51	—	—	—
Total [1] . .	436,002	41,997	402,786	19,724	5,606	1·4	3,987

[1] General average percentage applied where sample information insufficient in blank groups. The totals include estimates for the blank groups of £79,982,000 share capital, £6,267,000 dividends.

Total Share and Loan Capital	838,788
Total Income	61,721
Total Repayment	9,593

The average rate of interest on loan capital was 4·90 per cent. as compared with an average rate of dividends on share capital of 9·63 per cent. This latter rate varied in important groups from 16·3 per cent. for Mines, 10·4 per cent. for Commercial and

Industrial, 9·9 per cent. for Railways in British Possessions to 5·2 per cent. for Iron, Coal and Steel, 4·4 per cent. for Financial, Land and Investment and 2·7 per cent. for Oil.

Railways in British Possessions account for £216 millions, or over one-quarter of the total loan and share capital analysed in the above table. This is almost entirely due to the heavy British investments in the Canadian National and Canadian Pacific Railway companies.

The total British loan and share capital in the Electric Lighting and Power group is £43 million, contrasted with only £16 million in the case of British companies operating abroad. In the case of the loan capital in the Telegraphs and Telephones group the corresponding figures are nearly £18 million for companies registered abroad and £4½ million for British companies (see Table IV). These comparisons relating to British investment in the younger industries bear out the view that the British company operating abroad is no longer so favourable a medium for the investment of capital. It is true that among the securities analysed, the British company accounts for £1,187 million as compared with £839 million for the company registered abroad. But it must be remembered that there is a considerable amount of British money invested in foreign securities not quoted here; and the inclusion of these would probably increase the latter to a larger figure than the former. It would therefore appear that with the growth in our foreign investments the proportion British controlled is tending to diminish.

It is now possible to summarise the results obtained for the three groups of securities analysed.

TABLE VI

Table showing the nominal amount of British Capital invested Overseas in the classes of Securities analysed, the Income derived therefrom, and the volume of Repayments in 1929.

(£000's.)

Group.	Capital.	Income.	Repayment.
1. Foreign and Colonial Government and Corporation Stocks	1,412,425	64,661	30,425
2. Companies registered in the U.K. and operating abroad	1,186,811	85,983	8,488
3. Companies registered and operating abroad	838,788	61,721	9,593
Total	3,438,024	212,365	48,506

The above table shows that in the field of investment examined, British capital aggregated £3,438 million. As already explained, this omits the important body of British holdings of securities not quoted on the London Stock Exchange, and a certain amount of bearer securities of Foreign and Colonial Governments and Corporations, the coupons of which were cashed abroad by British investors. Taking this in conjunction with the substantial British holding through foreign nominees of securities under Group 3, and individual private holdings and investment in real estate abroad, we consider that this total should be written up by at least £300 million to £3,738 million, covering the whole field of British investment overseas.

The income derived from the capital dealt with in the above table was over £212 million, and the rate of income 6·17 per cent. in 1929. In order to make this figure comprehensive, this again would have to be written up by at least £19 million to £231 million. The table given below throws some light upon the possible fluctuations of this figure in good and bad times.

TABLE VII

Table showing the division of British Capital invested abroad as between Loan and Share capital, and the Income derived from each class in 1929.

(£000's.)

Group.	Share Capital.	Divi-dends.	Loan Capital.	Interest.
1. Foreign and Colonial Governments and Corporations .	—	—	1,412,425	64,661
2. Companies registered in U.K. and operating abroad .	801,605	67,674	385,206	18,309
3. Companies registered and operating abroad . .	436,002	41,997	402,786	19,724
Total . . .	1,237,607	109,671	2,200,417	102,694

These figures reveal that in spite of the fact that debentures and other forms of loan capital constitute nearly two-thirds of British capital overseas, yet dividends on share capital averaging 8·86 per cent. amounted to more than half of the total income from these investments in 1929. If in a bad year average dividends decline, say, to 3 per cent., then, assuming no default in debentures, it is clearly possible for our income from overseas investments to fall to as low a figure as £140 million, thus illustrating the extent to which world depression may affect our

balance of payments through this item. Conversely, in a good year this figure may rise to as much as £300 million.

Overseas Investments in 1929.

According to the Midland Bank figures, money subscribed for overseas issues in London in 1929 was £94,347,000, excluding issues made for conversion or redemption. The figures for repayment given in Table II include, however, certain sums repaid by the Australian and New Zealand Governments from funds raised by new issues in 1929. The inclusion of these funds brings the Midland Bank total to £105,567,000. It appears from the interest payments made on certain of these new issues that as great a proportion as 9·56 per cent. was paid tax free to foreigners. Applying this percentage to the total new money subscribed, the British subscription to sterling issues in 1929 was £95,475,000. If then we deduct the sum of £48,452,000 representing capital repayment, and therefore automatically available for reinvestment, the new money invested in this class of security amounted to £47,026,000 for 1929. The following table facilitates comparison with previous years:

	(£000,000's.)
1929	47
1928	108
1927	134
1913	243 [1]

These figures disclose the striking decline that has taken place in our annual new overseas investments, not only since 1913, but also since 1927. It is important, however, to remember that they do not give an accurate picture, but rather an indication of the position of our annual investment overseas, since they exclude the money absorbed annually in the net purchase of existing securities, or invested in new issues made entirely abroad. With regard to the bonds of Foreign and Colonial Governments and Corporations, apart from a gradual repurchase of securities by foreign nationals, very little change in ownership during 1928 and 1929 is noticeable, but, as has already been stated, the practice of investment in securities not quoted here is growing, and the new capital invested in this way is not easily ascertainable. But it is certain that the diminished attractiveness of overseas investment in 1929 as revealed by the above figures, and the heavy

[1] The figure for 1913 is adjusted in accordance with the index-number of wholesale prices for 1929.

liquidation of American securities accompanying the Wall Street crash, were reflected in a like decline in investment in this form of security during that year. This general decline in overseas investment is particularly serious at the present moment, when Britain is struggling to maintain her export trade, since her income from this item is becoming increasingly important as a means of paying for imports, which tend to grow steadily with the growth in population. This income, calculated at £231 million for 1929, in view of the subsequent world depression will almost certainly fall by something like £70 million to about £161 million for 1931, thus still further emphasising the great need for building up these investments as a bulwark against bad times.

It has not been possible in this analysis to throw much light upon the changes that have taken place in the nature of our investments overseas during 1928 and 1929, except in the case of the securities of Foreign and Colonial Governments and Corporations, where the results for 1929 were obtained by the same methods as those used for 1928. Further inquiries which I hope to undertake will render possible a more complete survey of these changes. Meanwhile, in response to many requests, it is hoped in a later article to analyse the results contained here on a geographical basis, so as to obtain an indication of the volume of British investments in particular colonies and foreign countries.

ROBERT KINDERSLEY

SILVER

A Study in Monetary Stability

The purpose of this article is, first, to attempt to explain the recent phenomenal fall in silver values; secondly, to discuss the effect of low silver values on world trade; and thirdly, to discover what remedies are feasible and useful.

The price of silver has declined in five years from 32*d.* to 13*d.* per oz. Both in India, where silver is hoarded wealth, and in China where it is the exchange standard and the monetary reserve, this occurrence has consequences (affecting almost half the world's population), which merit quite elaborate analysis.

A typical year's consumption will be divided between the various uses in the following proportions: industry 20 per cent.; Indian hoardings 37 per cent.; Chinese uses 35 per cent.; non-Chinese coinage 8 per cent.

The main Chinese uses are coinage, note and bank deposit reserves, a little jewellery and uncoined circulating silver.

There is a rough correlation between silver prices and the usual wholesale price indexes, which gives the clue to the nature of the former. The 20 per cent. of silver used industrially exhibits cyclical fluctuations it is true, but we must pay more attention to India (37 per cent.) and China (35 per cent.). The Indian hoarding demand naturally varies with crop prices, and import prices are lowered so far as India's capital loss, when the price of silver falls, increases the disposition to save. The Chinese relationship, which we elaborate below, is more direct. So far as Chinese internal prices are sticky, the price of silver, as Chinese exchange, must vary so as to produce, amongst other effects, an equilibrium of exchange. Thus a fall in silver is a reflection of lower export prices, and in turn spoils the China market for imports. This relationship does not exclude the possibility of a fall in silver proceeding from increased supply, but determines the proportion of it which must be taken by China. Round about 1928 demonetisation sales of silver produced this situation, and carried the price of silver lower than necessary to balance China's exchange. Since 1929 production has declined considerably, and demonetisation sales a little, yet nevertheless the price has declined even more steeply, either because the reduced total

supply is still too large for India, now affected by the fall in export prices, or because this fall, bearing on China, has automatically depreciated silver.

Over this period, and indeed for many years past, the Chinese price level has been rising (15 per cent. in Northern China since 1926, but probably less elsewhere [1]). Turning first to causes unconnected with silver, we find the destruction of supplies by banditry and war; then the customary increasing issues of inconvertible notes, and thirdly, specific issues, no more convertible, by War Lords. Among the causes connected with silver we find under-valuation, which raises the prices of imports. Since this under-valuation, from about 1924 onwards, has been relative to Chinese costs and prices (though the latter have risen), it will have curtailed imports, if the demand is elastic.

We have already noticed a special case (the demonetisation sales) which increased China's import of silver. This was probably automatic, and much of the silver, acquired in practice by speculators, is lying in Shanghai. The rest was put into the coinage. Since the flood of notes raised prices, presumably more coinage would be required for transactions customarily made in the metal. In commercial China, where the expansion of trade has been greatest, inconvertible paper is a minor factor, and probably the need for coinage has been given by the greater volume of transactions and by the rise in prices occurring, if the greater activity, largely in local manufacture consequent on under-valuation, increased investment, or if the products of this exchange-protected manufacture were sold at practically the same price as the remaining imports.

Before proceeding, it is as well to recollect the liability of China to fortuitous inflations. The average silver reserve for all China's note liabilities is probably not more than 3 per cent.—we may suppose that to be the meaning of Mr. Kann, author of *The Currencies of China*, when he states [2] that the existing silver will cover only 3 per cent. of China's paper. In the commerical areas, however, the reserve proportion is no doubt higher. As the banking system gains stability and adopts Western ideas of respectability, the demand for silver should be increased. For the time being it is curious to notice that the Nanking Government has been making laborious efforts to unify the coinage,

[1] *Vide* Pinnick, *Silver and China* (King, 1930), p. 35. I have used some of Mr. Pinnick's material on China in various places where specific acknowledgment is cumbrous.

[2] In *Finance and Commerce*, Shanghai, 1930, quoted Pinnick.

though this reform is diluted by the continuance of mediæval chaos in the matter of note issues. Issues of silver alongside inconvertible paper are no substitute for banking regulations, since the silver is likely to be withdrawn into hoards.

On the subject of China's ability to import silver, in its aspect as a transfer problem, we may surmise that under-valuation has tended to increase the gold balance of trade, since both China's demand for imports and the world's demand for her exports are probably quite elastic. On the other hand, civil war has diminished the inflow of loans, and gold export prices have been falling. For these reasons there has been a tendency, proceeding from China outwards, for Chinese exchange—silver—to depreciate; though since the demonetisation sales of silver it is possible that further depreciation, proceeding largely from India, has overtaken the Chinese tendency, and, until the depth of the slump in export prices, created a tendency towards a favourable balance of trade, satisfied by larger imports of silver. But the underlying relationship is that the price of silver must be such as to balance China's international account, including import of so much of the metal as that price will not commend to other markets.

There is a latent assumption here that the Chinese price level is fixed (or independent) and that the exchange gives way instead. It may well actually do so, since there may be variations in the inflow of silver (which need not be an initial cause of changes in the price level). So far as the price of silver is, in fact, less fixed than the Chinese price level, the relationship given above provides China with the simplest of all methods of obtaining exchange equilibrium, for there need be no painful efforts to adjust prices, nor the embarrassing consequences of such adjustment. A fall in the price of silver (proceeding from exchange difficulties) both offers the exchange advantages of under-valuation and curtails imports of silver. But should the fall in the price of silver proceed from an increase in supply, not compensated by an expansion of non-Chinese demand, then China's foreign balance is increased and more silver is taken.[1] The demonetisation sales did this; remonetisation might have diminished the balance. Moreover, movements either way are exaggerated by the fact that the silver yield of the customs collections pledged to the service of the foreign debt must be increased (or decreased) as the price of silver falls (or rises), so that imports must be increasingly curtailed (or permitted to expand).

[1] At least such a proportion of the increased supply as the resulting price does not push on to the other markets.

It is clear so far that China has had occasion to, and been able to, import silver in circumstances not directly dependent on the attractiveness of the price, for the price is constant. To what extent price is an attraction in the other markets is a matter of more than ordinary uncertainty. The coinage and art demand is very inelastic. The Indian demand may have more than unit elasticity. But the aggregate market is not elastic, it seems quite clear, and into a non-elastic market have been plunged the demonetisation sales.

Not only has the demand declined, but the supply increased, since the coining countries, other than China, have ceased new coinage and started to offload surplus silver. The average coinage demand, apart from India and China, has been 42 million oz. from 1920 to 1930, but in the last six years the average has fallen to 28.[1] India appears not to have bought any silver for coinage since 1920. On the other hand, the extra supplies coming mainly from Government disposal have averaged 37 million oz. for the eleven years, and 63 million oz. for the last three years. For these three years taken together the disposals have amounted to three-quarters of an average year's production calculated over those same three years.

These disposals started a few years after the war, when, owing to the rise in the price of silver to a level which threatened the token system of British and other subsidiary coinages, these coinages were debased. The British fineness was reduced from ·925 to ·500, which in the years 1920–29 has yielded 95 million oz. of silver for sale. And of course a falling price level makes some subsidiary coinage surplus, giving room for extra disposal. Instead of buying an average of 21½ million oz. as before debasement, the Mint has since debasement sold an average of 9 million. No less than 11 million oz. was sold in 1929. France and Belgium between them have sold 87 million oz. in the last four years, and Indo-China 50 million. Indo-China is said to have finally abandoned silver and has turned to gold exchange. This switchover has largely been caused by fears of silver dumping. India in four years has sold 103 million oz. On the reasonable assumption that sales since 1928 have been a cause of the silver collapse, India, Indo-China and France appear the most implicated, with Great Britain and Belgium runners up. For the European countries, debasement and redundancy have supplied the motives; for Indo-China and India, the movement towards gold.

[1] These estimates, and many others scattered through these pages, I have by courtesy of Mr. Joseph Kitchin.

But India's journey towards the pure gold standard is not enough to explain the disposals of silver and the degree of redundancy now attached to the old silver reserve. It is true that gold, gold exchange and foreign securities are replacing this reserve, but probably the origin of the redundancy was the purchase of nearly 200 million oz. from U.S.A. in 1920 to support the high prices and satisfy India's balance of trade accumulated during the war. This silver has more than lost its usefulness in the subsequent fall in prices.

The Hilton Young programme of 1926 was to diminish the silver reserve of 85 crores of rupees (293 million oz.) to 70 crores by the time the proposed Reserve Bank was established; then to 50 crores three years later; to 35 crores six years later; and finally to 25 crores (86 million oz.) ten years later. But by the beginning of 1928 the silver reserve had increased from 85 to 110 crores, and the totals already mentioned were then all raised 25 crores (in the Reserve Bank Bill of that date) so that the same quantity was left to be sold, or retained in case prices rose. Yet since 1928, despite the disposal of 30 crores, the reserve has risen to 129 crores (443 million oz.) by a further accession of 19 crores, and it is still increasing. The total net accession since the date of the report has been 44 crores (151 million oz.)—52 per cent. of the original reserve.

The first feasible explanation is redundancy of silver occasioned by the fall in gold prices. This diminishes the turnover requiring to be supported by silver, even though silver is the principal currency. Since 1926 circulating silver and paper rupees together have declined by 116 crores from 427, and included in this figure is the 74 crores of silver rupees mentioned above.

The second explanation is that if any Indians are disposed to bull silver, it will pay them to exchange rupees for imported silver, because though silver may rise, the rupee cannot.

Thirdly, many Indians may have lost confidence in the rupee, either because its intrinsic value has fallen, or because they fear that the 1*s.* 6*d.* ratio is doomed.

At this stage we may sum up by saying that in circumstances of non-elastic demand, the available supply of silver was tremendously increased by the policies of several Governments acting very largely haphazard. It is clear that the Indian Government's method of selling gently and "placing" the silver gives no more than temporary support to prices, and the disposals of the last two years have indeed appeared to be callous. The market has been demoralised, and prices would have fallen even

lower but for China, which automatically takes more silver if the price is lowered through external causes.

China has been reproducing the sweated prosperity of post-stabilisation France, and may in the end gain, for local textile and other industries seem to be developing. But railway material becomes dearer and transport is more important than even low gold wages. For the time being, also, China is deprived of useful imports for consumption, and the commercial areas are feeling the pinch of dearer imported food, like rice.

India loses 25 per cent. of her hoarded wealth, and the money-lenders have a harvest of foreclosures, with consequences almost as favourable to the revolution as the *1s. 6d.* rupee, succeeded by the collapse in wheat, cotton, sugar, jute, and other Indian exports.

Yet China provides the more subtle problem, and has puzzled Lancashire. The 1930 customs collections translated into gold were 12 per cent. less than in 1929, although, from January 1930, the collection was put on an assumed gold basis, that is, stiffened up in proportion as the price of silver fell. Reference to the course of silver prices, and a little arithmetic, show that actual imports must have declined nearly 20 per cent. During 1931 the decline continued. The 1929 export figures were 25 per cent. better than 1928, then steady to 1930, and have since diminished.

If China had been on a gold standard, we may suppose that her foreign balance would have declined in the slump, like Australia's. There would be only two ways out, to compound the external debt, or to curtail the imports of something. Since extreme pressure would have been on the Government and the banks, we may conclude that silver, for new coinage and reserves, would have been dispensed with (and on our assumption there is no extra need for silver arising out of promiscuous inflation). As it happens, it is cotton goods, railway wagons, and rice that have been foregone, both through the mechanism of the exchange and the need to maintain customs collection in gold values. It is impossible to calculate whether the silver imports, now persisted in but postponable, would make a balancing factor large enough, were China on gold exchange, to provide, if these imports stopped, for the continuance of both merchandise imports and of external debt payments, without either encroaching on the other.

This is a matter for statistics, which are not available, but we may reasonably guess that though being on gold would not have ruined China, for there was room to dispense with silver and some other imports, yet the variable silver standard has had the

advantage of providing automatically for China's solvency. As it happens, demonetisation sales, together with the variable tariff, have, until export values declined, increased China's balance of trade.

Had there been no demonetisation sales, 1930 might have witnessed such a decline in the foreign balance as to curtail the import of silver. Remonetisation purchases might have obliterated this import, or caused an export, leading to deflation. But it is hard to imagine any such circumstances capable of causing greater deflation than would have ensued from adherence to gold, and, in fact, no deflation has been necessary. The actual inflation has been amply covered by the demonetisation sales and may have been provoked by them. So far, the automatic system has held together.

However, the Kemmerer Commission (1929) reported in favour of a fixed (gold) exchange. This was not an occasion for surprise. American economists recognise at least amply the virtues of a stable exchange. But the exchange problem is only one of three. As Pinnick points out, there are the separate questions of unifying the coinage and of introducing system and safety into the note issues. Dr. Kemmerer's proposal for unification is to introduce a token coin, the *sun* (1*s*. 8*d*.) (about 70 per cent. full-bodied). The Sun-yat-sen dollar now being issued is just as useful for mere unification.

The systematisation of note issues must await the extension of centralised control over the provinces. Stabilising the exchanges involves tokenising the coins, otherwise the gold standard reserve will be at the mercy of future falls in the external price of silver. It would be the bimetallic system with divergences of the values of gold and silver satisfied not by the export of one metal and import of the other, but by violent and sudden fluctuations in the gold reserve. A token coinage would guard against this, but Kemmerer's proposals have evoked no enthusiasm in China, where it is recognised that the sentiment of the people is strongly against any coinage but full-bodied.

The method by which Kemmerer hopes to accumulate a gold standard reserve is also open to criticism. In part it would be immediately provided by taxes on local financial business, but short of a foreign loan it is difficult to see how the transfer could be made to London and New York. The other part of the reserve was to come from seigniorage profits, that is, sales of surplus silver. On the reasonable assumption that non-Chinese demand for silver has unit elasticity, and that China ceases to

buy, then the optimum rate of sale is such that even the modest sum of £20 million can never be accumulated in less than five years.[1] The resulting price would wreck the silver market and put producers out of business for a generation. And the advantages of the gold exchange system are not sufficient to justify forcing the Chinese to accept token coinage, and ruining every Indian or Chinaman who has silver wealth or coin. Much more important for China is the unification of, and imposition of legislative control over, note issues. The evils of complete chaos in these matters are obvious—those of exchange instability, hypothetical at the most.

For the remainder of the discussion we will assume, despite Kemmerer, that the silver standard is politically essential and economically desirable. The essence of it is the entire freedom of the price of silver, except so far as the exchanges can be kept level by (*a*) variation in indebtedness, (*b*) variation in the import of silver, or (*c*) variation in the price level, perhaps proceeding from (*b*). As to indebtedness: the ability of China to raise fresh public loans is little enough, though there are fluctuations of trade credit. Existing loans probably cannot be paid off without special effort, since the circumstances which make it possible to effect the transfer, increase the silver burden. But the import of silver should be variable without much harm, and it is not for certain wedded to the price level. The price level ought to remain as independent as possible. This would be feasible in most ordinary cases, even if the price of silver were not uncontrolled, provided that price level were not being inflated, or if export values did not fall so low as to lead to the export of silver. If the price of silver were controlled, silver might have to be exported in the severest cyclical cases. This would clearly be to China's disadvantage. On the other hand, lack of control upsets the producers, and India. From the non-Chinese point of view, control of sorts is the obvious aim, and without attempting to assess whether China's convenience should be suppressed for the purpose, we will proceed to canvass the possibilities of stabilising silver, and of rehabilitating it.

To devise control requires the gift of prophecy, and the most we can prophecy about the silver world is that, like everything else, it will no doubt settle down to some long-period equilibrium, probably on the basis of silver 30 per cent. cheaper than the realised post-war average. In the meantime, however, we can attempt short-range prevision, following Mr. Kitchin.

[1] Much longer, if India continues selling, or if there were a flight from silver.

The new supply fell away nearly 8 per cent. in 1930, and 1931 is expected to show a further 11 per cent. curtailment, though by itself this reduction in supply will not cope with the tremendous fall in price. The Indian hoarding demand should help to support prices, as it probably has more than unit elasticity, but, on the other hand, the tariff on imported silver has been raised from 4½*d.* to 6¾*d.* per oz., in an effort to support home silver prices. The industrial demand will probably revive as the trade cycle swings upward. The coinages of the Western world will probably provide a little new demand in the future, especially as prices begin to rise, and Europe is at the end of debasement. The Chinese demand will depend on the improvement in export business. Not much can be hoped for until general revival comes, which in turn will increase the supply of silver, since 70 per cent. of it is a joint product with base metals. So taking all these factors into account, and combining them with a prospect of further sales from India, the future of silver values as it must be visualised to-day is not at all attractive to producers.

Such a situation seems to indicate the need of a valorisation scheme. But the producers are scattered; they deal in a most uncertain market; their product is not produced for its own sake, so that mining of it cannot be deliberately curtailed, except so far as ores are now worked which are richer in (say) copper and poorer in silver; and lastly, the pure silver mines, mainly in Mexico, would wish to be included, but no price that would remunerate them could feasibly be chosen.

It is essentially a task for Governments and Central Banks. The American Government bought silver just for the sake of rehabilitating it, from 1878 to 1894. Various American experts are recommending the same course to-day; the Democrats and a number of Republican Senators are said to be in favour of it. On a number of simplified assumptions, the detail of which is not relevant, the cost of getting silver up to 30*d.*, everything else equal, would be in the neighbourhood of £12 million. It would be a bargain for the countries that export to India; and to China, so far as this business was preferred in China to the import or retention of silver.

Then there is a scheme that America should accept, say, 10 per cent. of war debt payments in silver at 18*d.* This would please Nevada; look like aid to Europe, yet not amount to cancellation; ease the gold problem, and satisfy everyone. But the silver problem will be past its worst by the time the various war debt payments are resumed.

Another possible scheme for killing several birds with the one stone would be world bimetallism. Some of the difficulties would be avoided if Central Banks had the option (preferably exercised in concert) as to which metal at any time they would sell.

For the time being, however, some will take comfort from the thought that the Indian Government's sales of silver are not popular among the local politicians. There is a possibility of their being discontinued (at a sacrifice of probably not more than £1½ million per annum at the most), either when a further instalment of home rule is granted, or when the bill for the establishment of a Central Bank comes up for further consideration. In all reasonable probability, the revival of India's home trade, following the rehabilitation of silver, would restore the public revenues, despite the apparent loss. It is inconceivable that the recovery in the value of silver hoards would have no effect on the disposition to save out of income and make good the capital loss. Moreover, dearer silver might in the particular case of India impinge on quite an elastic demand, and thus relieve the exchanges from part of the burden of importing it.

But India's gain, to be of consequence, would require a price of silver which so appreciated the exchange of China as to involve the export of silver, and deflation or default.

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MR. KEYNES' THEORY OF MONEY

1. "THIS book . . . has occupied me for several years . . . during which my ideas have been developing and changing, with the result that its parts are not all entirely harmonious with one another." It is this and the following sentences from Mr. Keynes' preface to his *Treatise on Money* which embolden me to try to set in order the difficulties which I feel about some parts of the fundamental apparatus employed in that work, in the hope that my criticisms may throw a little more light on what remains a field of appalling intellectual difficulty, and even perhaps assist the author himself towards giving to his fertile and penetrating ideas that harmonious synthesis of which he seems conscious that they still stand in need. What follows, therefore, is in no sense a review of this many-sided work as a whole; it is concerned only with the fundamental argument developed mainly in Books III and IV, and only with those parts of that argument which have reference to a closed system.

2. My first difficulty is to be sure exactly how much Mr. Keynes claims for the "fundamental equations" which are the main instrument of his analysis. Sometimes, as in Vol. I. pp. 138 and 222,[1] he seems merely to urge that while, equally with the old quantity equations, they are formally mere truisms, they are better designed than the latter for elucidating the causal processes at work. But on other occasions he makes the more ambitious claim that they exhibit the operation of forces which can by no possibility be revealed by the use of the older methods, so that his methods have the merit not merely of being neater or more instructive, but of leading us to a right result, while the older methods would have led us to a wrong one. Thus on p. 147 we are told that it is even conceivable that the cash deposits, the savings deposits, the velocities of circulation, the volume of monetary transactions and the volume of output may remain the same, and yet that the price-level of output may alter. This, it is admitted, would be an extreme case; but even in ordinary cases "the degrees of change in the quantity of money, the

[1] To save unbearable prolixity, I must take leave to assume that the reader studies this article with Mr. Keynes' volume close at hand, and is familiar with its terminology. The page references are to Vol. I except where otherwise stated.

velocities of circulation, and the volume of output will not be related in any definite or predictable [1] ratio to the degree of change in the price-level of output." The superseded equations are thus suddenly degraded from the rank of truisms to the rank of untruths.

The same *motif* recurs in the prelude and the epilogue to the valuable statistical discussion which goes to make up Book V. In the former we are bidden to distinguish (II. 4–6) between "monetary elements" and "investment elements" in the left-hand side of an equation whose right-hand side is the total value of output. In the latter (II. 89) we are given an index intended to represent the variability of the "turnover of the industrial circulation," that is, of the total quantity of money expended annually upon the preparation and purchase of output. Dividing this index by an index of output, we get a price-level; and we are asked to believe that the divergence of the actually recorded price-level of output [2] from this theoretical price-level is a measure of the potency of forces, connected with the relation between savings and investment, whose presence the concepts of quantity of money and velocity of circulation, combined into the concept of "turnover of industrial circulation," are inherently impotent to reveal.

My grounds for believing this assertion to be baseless, and the alleged dichotomy between "monetary" and "investment" elements to have no reality,[3] will appear more clearly when I come to consider Mr. Keynes' second fundamental equation. Meanwhile, I am only indulging in a preliminary appeal to him to make clear from the outset whether, in his dealings with "velocity" equations, he conceives himself to be infusing life into truisms or refuting untruths.

3. I have not much to say about Mr. Keynes' first equation—that which deals with the price-level of consumption-goods. He employs, it will be remembered, the following concepts and

[1] The collocation of these two words seems to me to create prejudice. There are many concepts in economics which are perfectly *definite*, but which cannot, in the present stage of our knowledge, be utilised for the purpose of prediction.

[2] As a measure of this, Mr. Keynes, for reasons which seem inadequate, uses the wholesale index. He desires to exclude services, which are excluded from his index of output, and therefore rejects his own "consumption-index," which indeed, as the reader can see by testing for himself, gives a plainly ridiculous result. But even so, surely the retail price-index would have been a better approximation.

[3] See, for another curious illustration of this dichotomy, II. 79–80, where the tendency of traders, in time of boom, to economise in their holdings of cash in order to expand their investment in working capital is treated as a "monetary element" and contrasted with influences on the side of investment.

symbols. E = the total of money earnings or income; S = the part of E not spent on consumption-goods; O = output, made up of R, available output or consumption-goods, and C, "investment" or additions to capital; I' = the part of income earned by the production of C, *i.e.* $E \cdot \frac{C}{O}$; P = the price-level of R. Then starting from the proposition $E - S = PR$ (i), we reach by easy algebra the result $P = \frac{E}{O} + \frac{I' - S}{R}$ (ii).

Equation (i) is of the Fisherine type, *i.e.* it equates the flow of money devoted to the purchase of a certain type of goods during a period with the flow of goods of that type becoming available for purchase. And equation (ii) derived from it is well adapted to show the effect of changes in the distribution of a given income between saving and expenditure on consumption-goods. I am not sure that it is so well adapted to show the effect of the kinds of changes in which, in a study of short-period fluctuations, we are most interested. Thus, suppose a Government or banking authority creates new money by way of doles, it is clear that the stream of expenditure devoted to consumption-goods will be increased, while "income" in Mr. Keynes' sense (*i.e.* sums earned by the production of output) is unaffected. Hence in this case the equation fails us.[1] In the more important case in which both income and non-available output are increased, through the payment of new money to factors of production which are drawn into employment in order to build up increments of working capital, the equation stands; but the inference drawn from it—that a change of this type affects in the first instance only the second term of equation (ii) and not the first—is only valid on the assumption that the change can be effected without bringing into play the law of diminishing returns. For otherwise, since a unit of output is defined as being that output which has a given cost of production at the base date, E will be increased out of proportion to O, and the first term of the equation will rise.

4. I pass to the second fundamental equation, which introduces us to P', the price-level of C, and Π, the price-level of O. We have $\Pi = \frac{PR + P'C}{O}$ (i), whence by easy algebra $\Pi = \frac{E}{O} + \frac{I - S}{O}$ (ii) where $I = P'C$, the value of "investment."

[1] My attention was first drawn to this point by Mr. A. Golodetz of Trinity College, Cambridge: nor do I claim discovery of the point which follows.

The main thing to notice about (i) is that of all the truisms in which the theory of the value of money has been formulated, this is the most truistical. For it does not, like the Fisherine type of equation, direct our attention to a phenomenon of the market, nor, like the Marshallese type, to a phenomenon of the mind; it is simply the formulation of a weighted average. This, while it is a little surprising in an equation whose claim to superiority over its predecessors is made to rest on its superior efficacy in directing our attention to the causal processes involved, is not, of course, in itself a condemnation. It merely means that, as Mr. Keynes admits, we must look outside the equation for an account of the forces determining the crucial term P'. But it is, I think, the main source of weakness in the whole structure that Mr. Keynes has nowhere thought it necessary to reduce the forces determining P' to an equational form.

Before approaching directly the problem of P', we may for a moment pause over a statement on p. 136 about the relation between P and P' which may have hung up others besides the present writer. "The price-level of consumption-goods," we there read, "is entirely independent of the price-level of investment-goods." This is true in the limited sense that each price-level depends proximately on the flow of the relevant class of goods and on the flow of money directed to its purchase. But it is rightly conceded on p. 143 that both R and the flow of money directed on to R will themselves be influenced by the level of P'; and it is urged on p. 152 that the conditions of equilibrium of P include equality of S with I, *i.e.* with the *value* of C, not merely with its amount. It seems, therefore, that we need not take the statement on p. 136 too much to heart.

What is P'? It is the price of "investment," which by definition includes increments to working capital as well as new machines or "capital goods."[1] But this composite nature of C is not always, I think, sufficiently remembered. Thus the argument connecting P' with the rate of interest, which is first stated on p. 154, and to which I shall return, is relevant only to the price-level of that part of C which consists of new machines. The price-level of increments of working capital is a somewhat elusive notion. Sometimes (p. 314) Mr. Keynes treats the price-level of working capital *as a whole* as being practically identical

[1] Incidentally, "production of consumption-goods" on p. 134, line 19, should read "production of available output," since the former phrase has been defined on p. 130 to include additions to working capital in consumption-trades, and thus to overlap with "investment," with which on p. 134 it is contrasted.

with the price-level of raw materials at wholesale. But the more natural interpretation of the price-level of *increments* of working capital is that it is the price at which the entrepreneur buys from the factors of production the additions which they make to the total of goods in process, *i.e.* is the "cost of production" of these additions. This "cost of production" is *ex hypothesi* invariable, *i.e.* the value and the cost of this part of C are necessarily identical.

This fact, elsewhere ignored, is skilfully utilised in the celebrated banana parable (pp. 176 ff.), where it is tacitly assumed that the only form of "investment" known is the creation of increments of working capital, and nothing is said about the existence of any normal output of new machines, such as is characteristic of an ordinary modern community. If in Banana-land there is such an output, it is at least possible that the public, when it decides to "save," should bid up the price of the current output of mechanical banana-cutters. In this event, while S exceeds I' it will not exceed I—the price-level of output as a whole will not alter, and the losses of the banana-growers will be balanced by the abnormal profits of the banana-cutter-makers. But if the only kind of "investment" which people can buy is the normal annual increment of goods in process, whose price is prevented from diverging from its cost of production by the rule that the incomes of the factors of production must not alter, then indeed it *does* follow that an excess of S over I' involves also an excess of S over I, and that the additional savings of the public must remain unspent.[1]

5. Except in the banana saga, Mr. Keynes, like most writers, envisages a considerable output of new machines as a normal feature of equilibrium. I am not indeed sure that he fully takes account of the features which sharply differentiate an equilibrium so conceived from the so-called "stationary state"; but of that more anon. We can, I think, take it that it is usually of the price of new machines that he is thinking when he speaks of P', the price of "investment" or "non-available output." But during a very crucial passage of the argument (pp. 140–46), a fog

[1] While this is the comment on Mr. Keynes' banana fable most relevant to my own theme, it is not, I think, the most fundamental answer to his dilemma, which is to be found rather along the Böhm-Bawerkian lines explored by Dr. Hayek ("The 'Paradox' of Saving," *Economica*, May 1931). The flood of savings will ultimately find its vent in facilitating the more roundabout methods of production made profitable by the accompanying fall in the rate of interest. I should not agree with Dr. Hayek that this solution has much relevance to the problem of cyclical depression; but then Mr. Keynes' legend seems to be not so much one of cyclical depression as of secular decay.

is created through the use in close collocation of the word "investment" in this technical sense (*e.g.* p. 144, line 23), the words "new investment goods" in the same sense (*e.g.* p. 145, line 23), the word "investments" in the more ordinary sense of stock exchange securities (p. 142, line 30), and finally the words "new investments" (p. 143, line 18) in a sense which I must leave it to the reader to determine. Under cover of this fog we are guided towards the impression that there is no distinction between the price-level of existing stock exchange securities and the price-level of new machines. This view is indeed definitely and rightly repudiated a hundred pages later (p. 249), where we read, "Nor does the price of existing securities depend at all closely over short periods either on the cost of production or on the price of new fixed capital." But it is to be feared that the damage has been already done, and that this wave of fog is partially responsible for what is, in my judgment, the crucial defect in Mr. Keynes' analysis. For it is on p. 145 that the conclusion is reached that, if P declines owing to an excess of S over I', then, *even though there is no increase in the disposition to hoard money unspent*, there need be no counterbalancing rise in P', and there will therefore be a fall in Π, the price of output as a whole.

The argument adduced in support of this paradox is that "if the value of the new investment-goods is less than the volume of current savings, entrepreneurs as a whole must be making losses exactly equal to the difference," and will finance these losses by selling securities to those who have surplus savings to dispose of. But the fact which this argument suppresses is that such a state of affairs cannot come about except as the result of an act of "hoarding," *i.e.* of holding back unspent part of a stream of money which is normally spent, *on the part of some one.*

We must, I think, picture equilibrium as a state of affairs in which two streams of money radiate outwards from "the public," one (A) passing through the dealers in consumable goods to the producers of consumable goods, the other (B) passing through the dealers in securities into the hands of company promoters and the like, and through them to the producers of new machines. "The public," it is true, buy for the most part existing securities and not new issues; but it is a commonplace that it is only through their willingness to invest their savings in existing securities that money is set free in the hands of more adventurous persons to finance extensions in the nation's stock of real instrumental capital. Now suppose "the public," feeling an increased

desire to save but not to hoard, switches over a streamlet of money from stream A to stream B. The price of consumable goods falls, and we may accept provisionally Mr. Keynes' contention that their producers realise " losses." But unless there is a hitch-up in the movement of stream B, either in the hands of " the public," or in those of the dealers in securities, or in those of the promoters, etc. who spend the proceeds of new issues, the stream B will be augmented to a precisely similar extent, and the producers of machines will in any period make " profits " precisely equal to the " losses " of the producers of consumable goods. If, therefore, an impoverished bootmaker hurries on to the market with a block of War Loan to sell, the buyer (if any) who will rush to meet him will be not a member of " the public," but (say) a bloated shipowner.

Now I am far from urging that such a hitch-up of the money stream B may not occur—on the contrary, I think it of the utmost importance that it frequently does. What I am urging is that one thing, and one thing only, can make it occur, namely, an increased desire on the part of somebody to " hoard," that is, to keep resources idle in the form of bank deposits. The point of difference between Mr. Keynes and those previous writers [1] who have recognised the possibility of savings running to waste in a general fall of prices, seems to be that he is at pains to distinguish *two* factors at work, which he christens the " excess-savings factor " and the " excess-bearish factor " (p. 145), either of which operating alone is sufficient to produce the result in question, while they detect one only—an increased desire to " hoard." What Mr. Keynes seems to me to have done is to extend illegitimately to the price-level Π an argument about excess saving *as such* which is perfectly valid for that price-level P which there are indications scattered throughout the book (*e.g.* pp. 54 and 134) that in his heart he regards as of superior and indeed of unique interest. And he has been led into doing this because he has nowhere applied to P' that rigorous Fisherine concept of a certain flow of money in a given time-interval meeting a certain flow of goods in the same time-interval, which in his first fundamental equation he has applied without question to P. In other words, he has reached his paradox that P can fall, P'

[1] Mr. Keynes, in his preface and elsewhere, has alluded so generously to my share in the evolution of this idea that I should like to repeat what I said in the preface to my *Banking Policy and the Price Level*—that that book took its final shape after such close and frequent consultations with him that it ceased to be possible to say how far the ideas set out in the crucial Chapters V and VI belonged to him and how far to me.

remain unchanged, and yet no new hoarding take place, by unconsciously permitting the two money streams concerned to get out of step with one another.

To prevent misunderstanding, it may be worth while to carry the story a little further, in the form of a highly simplified numerical illustration, so as to show how the alleged sale of assets, in order to maintain the scale of their operations unchanged, by entrepreneurs who are making less than their normal incomes, works out in terms of the old concepts.[1] On zero day, "the public" are spending £900 on boots and £100 on old securities; "speculators" are receiving £100 from "the public" and spending it on new issues; and "promoters" are receiving £100 from speculators and spending it on new machines. On day 1 the public, desiring to save more, spend £800 on boots, and £200 on old securities, of which half comes out of the safes of speculators. The money stream expended by speculators and promoters remains unchanged: speculators have "hoarded" £100. On day 2 the public behave as on day 1; but on this day the extra £100 of securities comes out of the safes of bootmakers, seeking to recoup their losses. The £100 hoarded by the speculators on day 1 remain tucked away. Days 3, 4, etc. resemble day 2 in every respect: the price-level of boots remains stable at $\frac{8}{9}$ of its old level, while that of machines is unaltered.[2]

Now how does this work out in terms of quantity equations? Let M be the quantity of money, V its velocity of circulation against output (alternatively, the number of times per year it becomes income), V^1 its velocity of circulation in all transactions, R the volume of output, T the volume of transactions, P the price-level of R and P^1 the price-level of T. Then our equations are $MV = PR$ and $MV^1 = P^1T$. Comparing day 3 with zero

[1] I do not propose to discuss how far such sales are quantitatively important as compared with the alternatives open to the entrepreneur, viz. cutting down his personal expenditure, cutting down his normal purchases of capital goods, cutting down the scale of his current operations: but I think Mr. Keynes has done a real service in calling attention to their existence. I would only remind the reader that if he wishes to keep to Mr. Keynes' terminology he must resist the temptation to describe such sales of assets as "dissaving" or "negative saving"—which is what in fact they are!

[2] Mr. Keynes may prefer a variant of the story as follows. Let us suppose that normally bootmakers have £1800—*i.e.* two days' receipts or expenditure—in hand at the close of the day. Then at the end of day 1 they have only £1,700 in hand. On day 2 they spend £900 as usual, receive £800 from consumers, and raise £200 by the sale of securities--half to the public, half to speculators—thus bringing their money holdings up to the old level. In this case the hoard of the speculators is transferred to the bootmakers: but no difference is made to the events on days 3, 4, etc., nor to the fundamental interpretation of the equations for those days.

day, it is clear that M and R and V^1 are unchanged, V and P and P^1 have fallen, T has risen. Does the alleged inadequacy of the quantity concept to reveal the truth amount only to this—that we must be careful not to expect the price-level of *one set of things* to vary with the velocity of circulation of money against *another set of things?* That certainly is an entirely acceptable, if not very startling, conclusion.[1] But since the alleged inadequacy extends also to periods of boom (see § 2 of this paper), when there is no counterpart to the increase of T through the forced sales of securities in the slump, I hardly think this can be the correct interpretation.

6. I pass to the passages in which Mr. Keynes discusses what he regards as the main determinant of P', namely, the long-period rate of interest.[2] Following Wicksell and Cassel, he argues correctly that a fall in the rate of interest increases the number of years' purchase at which the future annual income anticipated from the possession of a given machine is capitalised, and therefore raises the purchase price which it will be worth offering for the machine. But I suspect that, as a short-period influence on the price of machines, he greatly exaggerates the importance of this factor as compared with a rise in the price of the products which the machine produces, or, for that matter, with a fall in the costs of operating it. It is indeed rather curious that Mr. Keynes, who is much concerned to show that P and P' are more likely to move in the same than in opposite directions, should on p. 181 be so emphatic that " whether producers of investment-goods make a profit or a loss . . . does *not* depend on whether the producers of consumable-goods are making a profit or a loss." I suspect that most people would hold that during a slump the prime influence which depresses the price of ships is the fall in

[1] Exactly analogous results can, of course, be reached in terms of the Marshallian concept K. Owing to the increase in the stream of transactions, K^1—the proportion of the annual volume of transactions which people wish to hold enough money to conduct—is unchanged, while K—the proportion of annual output which people wish to hold enough money to buy—has risen.

[2] I do not propose to comment at length on the extremely interesting passages in which Mr. Keynes—with, as it seems to me, some confusing transitions in terminology—discusses the relations between bank-rate proper, short money rates in general, and long interest rates. I will only say that (i) his concept of the " fringe of unsatisfied borrowers " (II. 364) seems to me to throw much light on a difficult matter; (ii) in the light of the events of 1930, I should be inclined to substitute " less " for " more " in his conclusion (II. 362) that " short-term rates influence long-term rates more than the reader might expect " ; and (iii) that I think there is some confusion in the suggestion (II. 381) that non-industrial borrowings influence only the market rate of interest and not the " natural " rate.

the level of freights. In any case, the rate of interest, like other factors, surely exerts its influence on the price of machines through modifying the stream of money which people think it worth while to devote to their purchase. There are some curious sentences which lead me to suppose that Mr. Keynes might deny this—that he regards the effect of interest-changes on the price of machines as arithmetical and mechanical, supplementary changes in the demand for such goods being regarded as affecting not their price but the quantity which will be bought at the price thus mechanically fixed. " The deterrent or attractive effect (of a high bank-rate) on the demand for new capital-goods is often greater than one might expect if one was to concentrate all one's attention on the mere change of (say) $2\frac{1}{2}$ per cent. to 5 per cent. in the value of such goods due to the change in the rate of interest " (p. 203; cf. p. 208, bottom). This is surely a mistake. Once more, P', like other price-levels, is the resultant of the mutual impact of the relevant flow of money and the relevant flow of goods. Clinging to this rock, we shall find the rate of interest falling into its place as one of the factors affecting the magnitude of the former flow,[1] through affecting the old Marshallian K—the desire of people to " hoard," that is, to keep command over resources in monetary form instead of embarking on the purchase of goods.

If Mr. Keynes thus tends to over-exalt the rate of interest at the expense of K, he tends also from time to time to over-exalt it at the expense of the quantity of money M. Thus on II. 211 it is declared to be only through the rate of interest that the monetary authority can influence prices, since it cannot control M; though in later chapters the extent and importance of its power over M through the method of open-market dealings are strongly emphasised. Even the synthesis which he attempts at the end of the chapter on " the *modus operandi* of bank rate " (I. 220) rings a little strangely. " But the fundamental reason for laying the stress on changes of bank-rate . . . rather than on changes in the quantity of money is this. Given associated changes in the total quantity of money, and the effective level of bank-rate respectively, it is *via* the latter that the ultimate modification in the purchasing power of money is generated, looking at the problem dynamically. The order of events is *not* that a change of bank-rate affects the price-level, because in order to make the new bank-rate effective the quantity of money

[1] Cassel (*Theory of Social Economy*, ch. xviii, § 75) gives a very interesting and intricate analysis of the complicated interactions of the various factors influencing the price of machines during the successive phases of the trade cycle.

has to be altered. It is, rather, the other way round. A change in the quantity of money effects the price-level in the first instance because, other things being equal, this means a bank-rate which will change the rate of interest relatively to the natural rate." Now it is arguable that if A is the initiating cause of a change, and B merely the instrument through which A works, it is the part of a philosopher to assign primary importance to A. But indeed I suspect that this whole controversy is a debate of the hen-and-egg order between two of Mr. Keynes' skins (Preface, p. vi).

7. However that may be, there is, I think, one point at which Mr. Keynes' preoccupation with the connection between the rate of interest and the price of machines leads him into definite error. He goes so far (p. 211) as to deny altogether the influence of a change in bank-rate on the aggregate of output. " An all-round reduction of the costs of production should not stimulate anyone to increase his output, inasmuch as the aggregate incomes of consumers, which are simply the aggregate costs of production under another name, available to purchase the output, are also being reduced to the same extent. . . . The effect of easier credit on the costs of production [1] should be, not to stimulate output all round, but to cause a change-over from certain forms of production to other forms, namely, from those for which interest is a relatively unimportant cost to those for which it is a relatively important cost." There seems to me here to be a double error.[2] First, there is a confusion between " costs per unit of output " and " aggregate costs." If the aggregate real demand for goods in general is elastic, and if the monetary system is responsive to this elasticity, there is no reason why, even in a closed system, a fall in interest cost, or in any other cost, should not lead to an increased aggregate money remuneration of the factors of production, including that whose rate of remuneration has been lowered. This process admittedly may take time; but, secondly, Mr. Keynes is ignoring altogether the immediate increase in the volume of bank money which is admittedly normally associated (whether as hen or egg) with the lowering of bank-rate, and which,

[1] ? For " on the costs of production " read " on output."

[2] I had almost written " a triple error," bearing in mind that the possibility that the saved interest will simply be added to the net receipts of the entrepreneurs, and expended by them on goods, period after period, just as it would have been by the interest receivers. But in this case there will, it is true, be no *immediate* increase of output; also the case is perhaps ruled out by the assumption of competition. The arguments for wage reduction put forward by the railway companies in 1931 show, however, that this type of reply is not always irrelevant to the claim that a reduction in a certain category of aggregate costs (in the railway case, wage-costs) will necessarily reduce aggregate buying power.

being used by entrepreneurs for the building up of new working capital, becomes income in the hands of consumers in the manner explained in detail in Chapter XX—a chapter with which the present passage seems wholly inconsistent.[1] I do not, of course, deny that a change in bank-rate, especially if it permeates through to long-term rates of interest, will have a *greater* effect on some branches of production than on others; nor do I deny that in some circumstances it will have very little effect on anything at all; but the particular reason given for its being necessarily (in the absence of error) inoperative on output as a whole is, I feel sure, both fallacious in itself and inconsistent with much of the rest of Mr. Keynes' analysis.

One more comment before leaving the rate of interest. Wicksell argued that if the market rate of interest was put down below the "natural rate," the rise in prices would continue indefinitely until the market rate was put up again. Cassel argued that it would not, because as a result of the stimulus thus given to what Mr. Keynes calls "investment," the capital market would become saturated and the natural rate of interest fall till it equalled the market rate, which would then no longer be artificially low. Mr. Keynes refers to this controversy without stating clearly the point at issue (p. 198), and indicates that his sympathies are on the side of Wicksell; yet a few pages later (p. 203) we find him, in the converse case of a rise in the market rate, arguing exactly on Cassel's lines. For he writes that the rise in the market rate and the consequent fall in the price of instrumental goods "must necessarily be deterrent to the production of such goods until, as a result of it, the falling off in their prospective supply has raised the money value of their prospective yield sufficiently to offset the effect of the higher rate of interest." It is not clear, therefore, where his quarrel with Cassel lies.

8. I pass on to another distinctive feature of Mr. Keynes' work—the sharp distinction which he draws between "incomes" and "profits." "Incomes," it will be remembered, include the normal earnings of the entrepreneur, whether these are in fact being earned or not; and "profits," positive or negative, are composed of the difference between the *actual* net receipts of the entrepreneur per unit of time and these theoretical "incomes." "Incomes" are usually assumed not to alter during the short

[1] For that chapter contains an account of what happens when "the banks adopt a lending policy which allows the production of consumption-goods to increase," in such wise as "to permit all the unemployed factors of production to return gradually to work" (p. 305).

transitional periods with which, in the study of the trade cycle, we are concerned. " Savings " can only be made out of " incomes," so that if an entrepreneur spends his " profits " on the purchase of new machines, he is not " saving," while if he refrains from spending on consumption a normal income which he has never received, he is deemed to be " saving."

I do not think there is any question that this terminology is extremely confusing, and will be liable to lead even practised thinkers into error unless they are continually on their guard. How many of those who have taken up the cry that a slump is due to an excess of Savings over Investment, and a boom to be an excess of Investment over Savings, realise that the savings which are so deplorably abundant during a slump consist largely of entrepreneurs' incomes which are not being spent, for the simple reason that they have not been earned? How many of them realise that, in striking the balance during the boom, we must count in Investment all purchases of capital equipment out of the boom profits of entrepreneurs, but must refrain from counting the money so spent among the Savings? It must, I think, be left to the gradual experience of teachers and expositors to decide whether the new terminology has sufficient advantages to outweigh its very obvious dangers. Meanwhile, I confine myself to a few special comments.

In analysing the course of a boom, it is of course essential to introduce at some stage of the argument the well-known fact that, in Professor Pigou's words, a rising price-level involves both a doctoring of past contracts in favour of entrepreneurs, and also the opportunity of making new contracts on exceptionally favourable terms, thus giving them both the means and the motive to expand the scale of their operations. But I doubt very much whether it tends to clarity to introduce this secondary complication *from the start* into the exposition of the primary process by which the creation of new bank credit in favour of certain entrepreneurs enables them directly to draw new factors of production into employment, and to maintain them at the expense of a sacrifice of real income by the remainder of the community. It is, I think, worth while being made to realise that in a community of peasant proprietors and small industrialists, in which all incomes were mobile, and " profits," in Mr. Keynes' sense, impossible, it would still be possible for the Government or the banking system, by means of inflation, to transfer real income to itself or its nominees. Similarly, it is important to realise that, if there is an increased desire on the

part of the public to "hoard," there is not *merely* (as I think readers of Mr. Keynes' words on p. 174 [1] and p. 316 might suppose) a transfer of money balances to the savers from the entrepreneur class, but *also* an increase in the real value of the aggregate of money balances as a whole; and this again is more easily grasped if we start by considering a community in which the difference between entrepreneurs and others does not exist.

These, however, are matters of pedagogics rather than of substance. A more substantial question is whether the category of gains which would give entrepreneurs, if they were free to make new bargains with the factors of production at the existing rates, an incentive to increase production (which is the definition of "profits") can rightly be regarded as coextensive with the category of gains arising out of the doctoring of past contracts in favour of entrepreneurs as a result of price-inflation. Granted, however, provisionally that it can, I wish that Mr. Keynes had been content to treat the fact that the departure of profits from zero is the mainspring of industrial change (pp. 140, 157) as a sufficient ground for differentiating them, at some stage of the argument if not at the start, from other incomes, instead of seeking supplementary reasons which will not, I think, bear examination. Thus the quasi-magical peculiarity attributed to profits on p. 139, where it is stated that they form a widow's cruse, which is never depleted however riotously it is spent, turns out, I think, to be only a special case of the general principle (operative, presumably, in every type of society) that all money must at any moment be somewhere; [2] so that if we have ruled out (openly) the possibility that "costs" per unit of output can rise and (tacitly) the possibility that output, and therefore *aggregate* costs, can be increased,[3] the money spent on any day

[1] "There is a transference of wealth to the savers from the general body of producers . . . total wealth remaining unchanged." There is ambiguity here in the word "wealth"; the real capital of the community is unchanged, but the real value of its money-stock is increased—an instructive paradox which Mr. Keynes' treatment tends to conceal.

[2] It is to that extent more comforting than the doctrine which seems to be put forward on p. 148, and which is the foundation for the paradox alluded to in my paragraph 2 above—that money connected with the receipt of profits need not be anywhere, and hence that P' can rise and profits emerge without any "increase in the quantity of money (or equivalent change in other monetary factors)." Once more, I cannot bring myself to believe that the question of what is done with profits in the period after they are earned affects the fact that (output being unchanged) P' cannot alter, nor profits emerge, without a change in "monetary factors."

[3] I have to thank Mr. J. E. Meade of Hertford College for putting me on the right track here.

by one entrepreneur must be found at nightfall in the bank balance of another.[1]

On the following page (140) a further reason, which if sound would also be a graver one, is adduced why "it would be anomalous to add profits to, or subtract losses from, income"; namely, that "in that case savings could never fall off, however great the expenditure of the public on current consumption, and equally savings could never be increased by a reduced expenditure on consumption; provided merely that entrepreneurs were continuing to produce the same output of investment-goods as before." I cannot see any foundation for this opinion, which must, I think, spring from a failure, analogous to that discussed in paragraph 4, to distinguish the successive periods of time during which the flow of money must be watched, and to which our equation, in whatever terms we express it, must be successively applied. Let us agree to call all net receipts by the name "income"; and let us suppose (to take only one of many possible cases) that on day 1 non-entrepreneurs switch over a stream of £100 from expenditure on machines to expenditure on boots, all other money-flows remaining unchanged. Then there is on that day a falling off of £100 in the daily rate of savings. Now suppose that on day 2 non-entrepreneurs act again as on day 1, while boot entrepreneurs spend on champagne the extra income received on day 1, and machine entrepreneurs, having on day 1 received £100 less income than usual, refrain from buying £100 worth of machine-making machinery which they would normally have bought. Then, on this day, the daily rate of savings is reduced by £200 below the level from which we started. Where is the difficulty?

9. In conclusion, I must confine myself to a few very tentative remarks on the relation between Mr. Keynes' analysis and the broader theory of the trade cycle in its relation to economic progress. Whatever may turn out to be the most accurate and convenient form of expression, I have no doubt that Mr. Keynes is right in laying stress on "hoarding" as a dominant feature of trade depression. In this respect I feel sure his work is of high significance; for nine out of ten people, including many bankers, are still quite unable to see how, under a modern banking system,

[1] It seems to me, however, misleading to add that "however much of their profits entrepreneurs spend on consumption, the *amount of wealth* remaining to entrepreneurs remains the same as before" (my italics); for the more entrepreneurs spend their profits instead of hoarding them, the more prices will rise, and the less will become the real value of the bundle of money thus tossed to and fro.

deposits which are "in" the banks can fail to be "used" by the banks in some way or other; and even most of those Continental theorists like Tugan Baranowsky and Spiethoff, between whose work and his own Mr. Keynes is right in finding points of affinity, seem to have failed to grasp the essential paradox that Saving is the one thing that cannot be saved.[1] Where I suspect that there is still work to be done is in clearing up the nature of the forces which let the spirit of hoarding loose. And that brings me back to a point to which I have already alluded—the peculiar nature of the state of affairs which Mr. Keynes, like the rest of us, has brought himself to regard as that of "normality" or "equilibrium." It is a state of affairs in which the community is adding year by year to its stock of capital equipment at such a rate as not merely to keep pace with the growth of population, but to raise perceptibly the standard of comfort.[2]

I shall not attempt even to outline here the reasons which have led me always to suppose that in such a society the technical obstacles to the maintenance of anything which can be called "stability" must always be extremely formidable, nor those which lead me to think that if, in face of this "normal" increase in capital equipment per head, "stability" is to be interpreted to mean "stability of commodity prices," the difficulties become more formidable still. I will content myself with one illustration. Looking back on the American expansion of 1925–29, Mr. Keynes finds that up to 1927 the prodigious volume of "investment" was accompanied by an equally prodigious volume of "saving," but in the subsequent years he is able now to detect signs of that "commodity inflation"—that "excess of investment over savings"—the existence of which he was at the time disposed to deny (II. 190). But would it make much difference if he could detect no such thing? Even if "savings" had continued to keep

[1] Subsequent writers, including myself, have failed to do justice to the clarity with which this paradox was already expressed in the first edition (1920) of Pigou's *Economics of Welfare*, p. 812. "What they have done by not spending their money has been to reduce prices in general below what they would otherwise have been, thus making the money of other people worth more goods than it would otherwise have been worth, and thus enabling these other people to buy more goods. What they have accumulated by this proceeding is, not things, but the power, when they choose later on to spend the money, to raise prices, reduce the purchasing power of other people's money, and absorb for themselves the goods which have in this way been rendered inaccessible to others. The accumulation is, thus, an accumulation of claims upon other people. It is not an accumulation of things."

[2] Mr. Keynes is not very explicit about this, but I take it to be the implication of his assumption in Chapter XVI, that "general economic activity" is growing at 3 per cent.

pace, could "investment" have continued for ever in America at the rate which it attained in those years? And what is the effect of an indiscriminate stimulation of "investment" by low money rates and a general policy of boost at a time when all the known channels of investment are in a state of super-saturation?[1] At such times, is the "put them through it" policy of the parrots and the penguins a mere relic of sadistic barbarism, or is it in truth an essential phase of the clinical treatment of the trade cycle, whose omission is as perilous as its over-prolongation?[2] These are some of the broader questions over which Mr. Keynes' rich volumes leave me, having sated the passions of pedantry, still puzzled and pondering.

D. H. Robertson

[1] See the most suggestive remarks in Kreuger and Toll's report, April 1931.
[2] I venture to refer to my *Banking Policy and the Price Level*, pp. 80 and 91.

A REJOINDER

1. SINCE I must not occupy too much space, I will deal primarily with what appears to me to be the central difference of opinion between Mr. Robertson and myself, off which most of the other fragments of contentious matter are splinters. For if we could resolve this satisfactorily, much of the rest might resolve itself. I will then treat by way of brief notes with secondary matters of which—whether or not I have expressed myself as well as I might—Mr. Robertson would not, I feel, make so much, if I could convince him that the fundamentals of my position are rightly taken.

2. This central difference of opinion is as follows. Mr. Robertson quotes me, correctly (p. 400), as holding the view that if P, the price-level of consumption-goods, declines owing to an excess of saving over the cost of new investment, then there *need* be no counterbalancing rise in P', the price-level of investment-goods, " even though there is no increase in the disposition to hoard money unspent." Mr. Robertson holds that this result cannot come about " except as the result of an act of hoarding." This difference of opinion is evidently a special case of a more general difference as to the character of the forces which determine the price-level of investment-goods. Mr. Robertson is quite right that it is absolutely fundamental to my analysis to distinguish *two* factors at work, which I have christened the " excess-savings factor " and the " excess-bearish factor." This is the vital matter which I have failed so far to make clear to him. I will endeavour, therefore, to re-state my position.

3. There are three conceptions which need to be distinguished:

(1) The volume of savings deposits or "inactive" deposits in the banking system, sometimes, not very conveniently, called "hoards."

(2) The curve, representing the relative preference of capital-owners for savings deposits and other capital assets respectively (or, as I have sometimes put it, for liquid and non-liquid assets respectively), in which the abscissa measures the quantity of hoards held when the price of non-liquid assets in terms of liquid assets (or hoarded money) is given by the ordinate.[1] This curve is what I have described—not very felicitously, perhaps—as the

[1] It is assumed for the sake of simplicity that any change in the quantity of non-liquid assets during the period under consideration is small relatively to the total stock of such assets. It does not alter the character of the argument if we dispense with this limitation, but the propensity to hoard has then to be represented by a family of curves instead of by a single curve.

" state or degree of bearishness." It might be better to call it " the propensity to hoard." The meaning and significance of this conception and its vital difference from (1) is what in my *Treatise* I have evidently failed to make sufficiently clear. The point is that, when a capital-owner is deciding whether to prefer liquid or non-liquid assets, his final decision depends not only on his " state of preference," or his " propensity to hoard," or his " degree of bearishness " (however one likes to put it), *i.e.* on the shape of his demand curve for liquid assets given the price of non-liquid assets, but also on what the price of non-liquid assets is. Accordingly, the amount of " hoards " or liquid assets which he actually holds has to be in due relation not only to his propensity to hoard, but also to the price of non-liquid assets. When a man in a given state of mind is deciding whether to hold bank-deposits or house property, his decision depends not only on the degree of his propensity to hoard, but also on the price of house property. His decision to hold inactive deposits is not—as Mr. Robertson almost seems to assume—an absolute one irrespective of the price of other assets. If it were, it would be impossible for the banking system to expand or contract the volume of money by " open market " operations; for there would be no price at which they could find a seller or a buyer (as the case might be) for the securities which they wished to buy or sell.

(3) The third conception is that of a *change* in " bearishness," as I have called it, *i.e.*, a change in the propensity to hoard, a change in the shape of the demand curve relating the demand for liquid assets to the price of non-liquid assets.

Now (1)—namely, the amount of inactive deposits or hoards actually held—is determined by the banking system, since it is equal to the excess of the total bank-money created over what is required for the active deposits. This amount by itself can give no clue to the degree of propensity to hoard or to changes in this degree. Even less can it give any clue to the excess of saving over investment. My central thesis regarding the determination of the price of non-liquid assets is that, given (*a*) the quantity of inactive deposits offered by the Banking System, and (*b*) the degree of propensity to hoard or state of bearishness, then the price-level of non-liquid assets must be fixed at whatever figure is required to equate the quantity of hoards which the public will desire to hold at that price-level with the quantity of hoards which the banking system is creating. That is to say, the price of non-liquid capital assets is a function of the quantity of inactive deposits in conjunction with the degree of propensity to hoard.

Accordingly, the price of non-liquid assets is not directly affected by the price of consumption goods. Indirectly, it is true, a change in the price of consumption goods will not be without reactions on the two factors which determine the price of non-liquid assets. There are two principal reactions—(i) a change in the price of consumption goods will tend, as a rule, to cause an opposite change in the propensity to hoard, since it will make more attractive at a given price than before, relatively to the ownership of liquid assets, the ownership of instrumental capital which is useful for the production of consumption-goods, and also, if it is taken as an indication of a continuing trend, the ownership of stocks of consumption and other goods; (ii) a change in the price of consumption-goods may conceivably, though not necessarily, involve a change in the same direction in the volume of active deposits, with the result that, if the banking system chooses to keep *total* deposits, and not inactive deposits, at a constant level, there will be a change in the opposite direction in the volume of inactive deposits. (iii) On the other hand, a change in the price of non-liquid assets may react on the price of consumption-goods because it will cause a change in profits, which, in turn, may affect in the opposite direction the amount saved [1] by the recipients of profits.[2]

Now the tendency of (i) and (iii) is to make the price of non-liquid assets move, not in the opposite, but in the *same* direction as that of consumption-goods. Thus the possibility of these two reactions does not help Mr. Robertson's view that the price-levels of consumption-goods and investment-goods will move in *opposite* directions—like buckets in a well. The tendency of (ii), on the other hand, may be in the opposite direction; but this is likely, it seems to me, to be negligible, and to belong to the class of the innumerable small, conceivable reactions of one economic factor on another, which one generally leaves out of account, except in special cases. Moreover, it is based on the assumption that it is the policy of the banking system to maintain the volume of *total* deposits unchanged, whereas my argument assumed that they

[1] For on my definition of saving there is a decrease of saving if *any* part of increased profits is directed towards current consumption.

[2] And, finally, one might add, though without much relevance to the present argument, that (iv) a change in the price of consumption-goods may in itself affect the amount of investment by causing changes in the amount of liquid stocks held off by the market, though this factor is not very important because it will merely diminish the magnitude of the movement of P in any direction as compared with what would happen in its absence, *e.g.* if all consumption-goods were perishable; and (v) a change in the price of consumption-goods may in itself affect the amount of saving.

were maintaining an unchanged policy towards the volume of inactive deposits, *i.e.* I was assuming that the quantity of *hoards* was unchanged.

4. Next, for my argument, which Mr. Robertson contests in the latter part of his § 5, that an increase of saving relatively to investment does not in itself bring about any net increase in the amount of purchasing power directed to non-liquid assets. An increase of saving relatively to investment during any period means that the savers find themselves at the end of the period with an increase of wealth, which they can embark at their choice either in liquid or in non-liquid assets, whilst the producers of consumption goods find themselves with an equal decrease of wealth, which must cause them to part at their choice either with liquid or with non-liquid assets which they previously possessed. Unless the propensity to hoard of the savers is different from the propensity to hoard of the entrepreneurs—and if it is different, it will mean that there is a change of hoarding-propensity for the community as a whole, which change is as likely *à priori* to be in one direction as in the other—it follows that the excess of saving has *in itself*, and apart from its repercussions on the aggregate propensity to hoard, no tendency to cause any change at all in the price of non-liquid assets. Nor, of course, has it any tendency to cause a change in the volume of inactive deposits, except in so far as the banking system may be influenced by changes in the business-deposits to fix the total deposits in such a way as to change the amount of the inactive deposits.[1] [Nor, equally, is a change in the propensity to hoard capable by itself, and apart from action by the banking system, of changing the volume of savings-deposits—it may spend itself in a change in the price of non-liquid assets.]

When, therefore, I said that the price of consumption-goods relatively to the cost of production depends solely on the excess of saving over investment, and that the price of investment-goods depends solely on the volume of savings deposits in conjunction with the degree of bearishness (or propensity to hoard), both statements were formally correct. But I ought to have added, to prevent misunderstanding, that I did not mean to imply that the price of investment-goods is incapable of reacting on the excess of saving over investment,[2] and hence on the price of consumption-

[1] This qualification does not seem to me to come to much, because one cannot say in general in which direction the business deposits will change, or how a change in them will influence the behaviour of the banking system.

[2] There are two principal ways in which the price of investment goods may affect the volume of saving. The first depends on the sensitiveness of the saving

goods; or that the price of consumption-goods is incapable of reacting on the volume of savings deposits or on the propensity to hoard, and hence on the price of investment-goods. I meant only that the influence of the one on the other *must*, like the influence on them of any other factor in the total economic situation, operate *through* the excess of saving in the one case and the volume of savings deposits or the propensity to hoard in the other.

5. I have found that some readers of my book have supposed that an excess of saving over investment is necessarily accompanied by an equal increase of inactive deposits; so that —presumably—an excess of saving would be impossible if the banking system were to behave in such a way as to keep the excess of the total deposits over the active deposits at a constant figure. Their interpretation of my theory seems to be this. An excess of saving is only another way of talking about an increase of inactive deposits; an increase of inactive deposits means a decrease in the velocity of circulation; thus, when I say that an excess of saving leads to a fall in the price of consumption goods, I am only repeating in a very complicated way the old story that a fall in the velocity of circulation must bring prices down, other things being equal. But, truly, this is not what I am saying. The volume of inactive deposits has, in my view, no particular relation to an excess of saving, but depends on whether the banking system is creating total deposits faster than the increments can find an outlet in active deposits. Nor is there any invariable association in experience between a growth of inactive deposits and an excess of saving. During the recent boom in U.S.A., for example, an excess of investment was accompanied by an unparalleled rate of growth of inactive deposits.

Mr. Robertson's objection, though much more complicated than this, is, nevertheless, related, I cannot help thinking, to this point of view. He does not think that an excess of saving necessarily requires an increase of inactive deposits, or, as he would express it, an increase in hoarding.[1] But he thinks that, *unless* an

of the public to the *relative* price-levels of investment-goods and consumption-goods. Do people save more when securities are, relatively, at a bargain level, and spend more when consumable goods are at a bargain level? The second arises when the price of investment-goods is such as to bring profits or losses to the producers of such goods, and these producers are influenced by the amount of their profits and losses in deciding how much to save and how much to spend. For if an entrepreneur spends more as a result of gaining profits, this constitutes, on my definition, a diminution of his savings.

[1] Or does he mean by hoarding something different from an increase of inactive deposits? There are some passages in his article which suggest that perhaps he may.

excess of saving is associated with an increase in hoarding, it will mean that an increased flow of purchasing power equal to the excess saving will be directed to the purchase of investment-goods. He thinks that this will involve an *equal* increase in the receipts of the producers of the current output of investment-goods, so that the losses of the producers of consumption-goods due to the excess saving will be balanced by profits of an *equal* amount accruing to the producers of investment-goods. His argument is of such a character that if the producers of consumption-goods, who are losing money, replenish their liquid assets by the sale of non-liquid assets *before* those who, saving money, use this money to buy non-liquid assets, then there will be a fall (or at any rate no rise) in the price of investment-goods; but if those who are saving money " get in first," then the opposite is the case. It would be very odd if the price-level were to depend on which of the two parties was on the telephone and which was not; and this alone is enough to suggest that there must be something wrong in the argument. But let us consider it in more detail.

Let us, for the moment, assume with Mr. Robertson that the savers dispose of their savings, into liquid or non-liquid assets as the case may be, before the losing entrepreneurs have time to provide for their losses. (In a sense this is an impossible assumption, since in a sense the two things must take place simultaneously. The first stage must necessarily be that the savers find themselves with more money, and the losers find themselves with less money. But we will allow the savers to " get in first " in the sense of allowing them to decide whether or not to embark this money in non-liquid assets, before the losers have time to decide whether or not to make up their cash-deficiency by selling non-liquid assets.) Mr. Robertson seems to think that the whole of these funds, in the absence of increased hoarding, will have to be directed to the purchase of the *newly produced* non-liquid assets already on the market, and that no other assets will come on the market whatever price may be offered, so that the aggregate selling price of the newly-produced non-liquid assets will increase by the exact amount of the excess savings, and the resulting profits to the producers of investment-goods will balance the previous losses of the producers of consumption-goods.[1] But this

[1] This is, I think, a correct account of his argument on p. 401; but I am not sure whether the numerical example on p. 402 is consistent with the argument on p. 401. The latter may be, it seems to me, not " carrying the story a little further " but a different story. In particular, it is not clear in the footnote to p. 402 why the bootmakers who end up with the same amount of money as at the beginning should be considered to be " hoarding."

is to mistake entirely the nature of the capital market. The price of investment-goods, *old and new alike*, will have to rise sufficiently to induce some of the existing holders, given their existing propensity to hoard, to part with non-liquid assets in exchange for such part of the excess savings as, at that price, the excess-savers desire to embark on the purchase of non-liquid assets. How great a rise this will mean in the price of non-liquid assets will depend on the shape of the curve which measures the propensity to hoard.

But this increase will only last so long as the telephone girls, attached to the exchange to which the losing entrepreneurs belong, persist in giving them wrong numbers. As soon as they can get through, they will sell non-liquid assets to the same amount as the excess-savers have been previously buying them—that is, unless the hoarding propensities of the savers are different from the hoarding propensities of the entrepreneurs, and the effect of these sales will be to bring non-liquid assets back again to their previous price. Nothing, indeed, can shake this previous price except a change in the volume of inactive deposits or a change in the propensity to hoard for the community as a whole.[1] Indeed, it seems to me that it would be absurd to suppose that the final result can depend on the order in which two transactions take place, which are, in the nature of the case, nearly simultaneous and each of which is as likely as the other to come first.

The essential point, which I maintain and Mr. Robertson resists, is the fact that an increase of saving which is not associated with an increase of investment does not change in any way either the quantity of assets or the quantity of purchasing power, but merely transfers command over cash in the first instance, and the ownership of assets after there has been time to reduce individual cash holdings to a normal level, between one set of persons and another set, *i.e.* between the saving public and the disappointed entrepreneurs. Since the total amount of non-liquid assets is unchanged and the total amount of liquid assets is unchanged, nothing has happened so far (unless the new proprietors have a different hoarding propensity from the old proprietors) to cause a change in the valuation of the one in terms of the other, *i.e.* in the price of non-liquid assets.

[1] I did not deal in detail in my book, and I am not dealing here, with the train of events which ensues when, as a consequence of making losses, entrepreneurs reduce their output. This is a long story, though not, I think, fundamentally different, which I intend to treat in detail in due course. Its only bearing on the present argument is that a change in output affects the demand for active deposits, and may therefore (according to how the banking system behaves) affect the supply of hoards.

I do not, by the way, understand the relevance of the quantity equation [1] with which Mr. Robertson concludes his § 5. We are discussing the relation between the prices of consumption-goods and of investment-goods—whether, assuming no change in the propensity to hoard, the one must go down when the other goes up, like buckets in a well—which he affirms and I deny. But neither of these price-levels occurs in his equations, which are concerned with the price-level of output as a whole and the price-level of transactions.

I should like to repeat that the amount of the hoards of the public is as much outside their control as is the total quantity of money, and for the same reasons. What the state of mind of the public towards holding money, and the changes in this state of mind, determine is the price of non-liquid assets which (*cet. par.*) the creation of a given quantity of money will involve. This is why it is so important to distinguish the forces determining the quantity of hoards (which is the affair of the bankers) from the forces determining the propensity to hoard (which is the affair of the public). The old quantity equations did not reveal this to me, and, to judge from his article, they have not revealed it to Mr. Robertson, just as they did not reveal to me the way in which the relation between saving and investment influences the price-level of goods passing into consumption.

6. I now turn, as briefly as I can, to Mr. Robertson's other comments, beginning with his § 2, where I assume that, in speaking of "the old quantity equations," he has primarily in mind the Fisher Equations.[2] I cannot admit that I have been wanting here in reasonable lucidity. I have never said that the older methods, strictly applied, would lead us to *wrong* results. My point is that they are incapable, so applied, of leading us to certain useful results. I cannot imagine why Mr. Robertson should suppose that the passage he quotes from my p. 197 is inconsistent with the Fisher Equations and reduces the latter "to the rank of untruths." For two of the variables I mention—namely, the volume of output and the price-level of output—do not occur at all in the Fisher Equations, which are concerned with the volume of *transactions* and the price-level of *transactions*, as I have repeatedly explained. I was trying to illustrate the point that the old quantity notions are incapable of leading us to the price-level of output, by pointing out that all or any of the variables

[1] In which he uses "income" in a different sense from mine, since it is equal to income + profit in my terminology.

[2] If not, I could, by taking up more space, adapt my argument appropriately.

occurring in the Quantity Equation might be unchanged and yet the price-level of output might be changed. In other words, not only does the price-level of output not occur explicitly in the old Quantity Equation, but it is not even a function of those variables which do occur in it. Wherein does Mr. Robertson's difficulty lie? For it is impossible that he can suppose that the Fisher Equation purports to tell us the price-level of output.

I should add that I am, avowedly, on weaker ground in the passage he quotes from Vol. II (p. 89). I do not claim to have proved inductively what I suggest may be the case; for the statistics I am using, though the best I could get, are much too dubious. For example, I agree with Mr. Robertson that I would prefer a retail index to a wholesale index, if I had a retail index. But I am entitled to point out that the results, for what they are worth, are not inconsistent with my *à priori* reasoning, and may even furnish a first approximation towards measuring the potency of the forces to which I have called attention; whilst Mr. Robertson, who apparently does not believe in these forces *à priori*, is equally entitled not to discard his *à priori* convictions on the strength of these statistics.

7. In § 3 Mr. Robertson has been wrongly instructed by Mr. Golodetz. There is no difficulty in dealing with Government expenditure financed out of loans, whether or not the loans are associated with the creation of new money. The only question to decide is whether a particular form of Government expenditure is best regarded as investment or as negative saving. I have myself treated Government expenditure on services which yield no immediate social income, as investment when it is in return for work done (*e.g.* war expenditure) and as negative saving otherwise (*e.g.* the dole). But my equation shows that it makes no immediate difference to the price-level which way we regard it. I should add that the outcome depends, according to my view, on the net effect of the Government's policy on the relation between savings and investment, not, as Mr. Robertson suggests, on the additional quantity of money associated with this policy. So far from the equation being ill-adapted to show the short-period effect of these things, it brings out clearly what nearly everyone overlooks—namely, that the short-period effect, on business profits, of the dole, if financed by borrowing, or indeed of a Government deficit arising in any other way, is exactly the same (ignoring secondary repercussions) as the effect of increased investment; whilst, on the other hand, the balancing of a budget, previously unbalanced, has as disastrous a direct effect on business

profits (again ignoring secondary repercussions) as that which ensues on a decay of home investment or on a decline in exports associated with a less favourable balance of trade.

Mr. Robertson's reference to the possibility of diminishing returns might be brought under the general heading of causes capable of producing spontaneous changes in efficiency earnings, to which I have devoted some pages (Vol. I, pp. 166 *et seq.*). But in this case, as in most examples of spontaneous changes, a full discussion would soon bring one beyond the ambit of a Treatise on Money.

8. Mr. Robertson's § 4 is mainly a preamble to the more important matters which follow and with which I have endeavoured to deal above. But I must say in passing that a rise in the price of banana-cutters will not avoid any of the dire consequences predicted in my banana parable, unless it leads either to an increased output of these machines, which I have expressly excluded from my premisses (p. 176 [1]), or to diminished saving by the producers of these machines, which offsets the increased saving by the rest of the community, which again contradicts my premiss as to there being a net increment of saving. It is too much to expect of an illustration of this kind that its results should follow not only from its stated premisses, but also from their opposite.

9. The impression to which Mr. Robertson has been guided, as set forth in the first paragraph of his § 5, is not that which I intended. The two conceptions involved are not "existing Stock Exchange securities" and "new machines," but "the existing stock of capital" and "the currently produced capital." My argument assumes that the price of both will be governed by the same influences in the sense that the purchaser of capital goods will have no prejudice for or against the new as such, though even this is not really vital to my central point; but the argument does not require that the new capital is identical with the old, either in composition or in price, in the sense that the current increment of capital is made up of different ingredients in such proportions as to be a perfect sample of the existing stock of capital. My assumption is that the forces which determine the value of the complex of newly produced capital-goods relatively to the value of

[1] If Mr. Robertson will read p. 176 again, he will see that it is not true that I tacitly assume increments of working capital to be the only form of investment. I expressly state what I assume to be happening to investment in fixed or instrumental capital. I have read Dr. Hayek's article, to which Mr. Robertson refers, without discovering in it anything relevant to this particular problem.

the existing stock of old capital-goods are not relevant to the particular problem here under discussion and can be neglected. I think that Mr. Robertson does not really disagree with this, and that his difficulty is again in the nature of a preamble to, and probably caused by, the very important difference of opinion, already dealt with, which is expressed in the last sentence of this paragraph.

10. Mr. Robertson's comments in his §§ 6, 7, are not of such a character that I can deal with them satisfactorily within a short compass. But, generally speaking, I agree that the passages which he criticises are not satisfactory as they stand, and ought to be re-written. I have not made it clear what forces I am taking account of at each stage. In the passages in question I have dwelt on the effect of a change in the pure rate of interest too much in isolation, and I have not, in the passage under criticism, successfully synthesised this with the rest of my doctrine. I should add that I had in mind (*e.g.*) " houses " and " buildings " generally, or " roads " and " railways," as typical capital-goods affected by changes in the pure rate of interest, rather than " machines." Mr. Robertson's habitual use of " machines " as typical capital-goods, though he may intend to include " houses " and " roads " under this term, creates, to my mind, rather a false suggestion, because " machines " in the natural sense of the term, *i.e.* " factory equipment," which are, it is true, somewhat insensitive to changes in the pure rate of interest, are quantitatively a very trifling proportion of the total stock of capital.

11. I will consider what Mr. Robertson says about nomenclature in his § 8. I think I might do better than in my *Treatise*, but it is not very easy. The last paragraph of his § 8, of which I can make nothing, makes me think that he does not quite see the difficulty. For if, as he suggests, we were to define " income " to mean " earnings *plus* profits " ($E + Q$ in my notation) and " saving " to mean the difference between income thus defined and expenditure on consumption ($S = E + Q - PR$), then it would follow that savings and the value of new investment would always be exactly equal (for $Q = PR + I - E$, so that $S = I$). Does Mr. Robertson, in practice, mean by " savings " exactly the same as what he means by " the value of new investment " ? I would partly defend my using the term " savings " as I do, by my belief that the ordinary man does not attach a perfectly clear and consistent meaning to it. We do not usually regard a man as " saving " if he refrains from spending the proceeds of an increase

in the value of his securities. Mr. Robertson wants to include in "income" money-profits from the price of new investment standing above its cost, but not similar profits from the price of old investment standing above its cost. I doubt if this is either convenient or instructive; for new investment, immediately it is born, flows into a pool of old investment from which it is undifferentiated. How soon must a new investment rise in price for the resulting profit to be reckoned as part of its owner's income? We have to draw a sharp line somewhere between "income" and "capital-profits," and I have tried to draw it at the point which, after much reflection, seems to me to be the most significant.

12. When in § 9 Mr. Robertson says that I am right "in laying stress on 'hoarding' as a dominant feature of trade depression," he is not quoting my exact words. By "hoarding" does he here mean (1) "an increase of inactive deposits," or (2) "an increased propensity to hoard," or (3) "an excess of saving over investment"? Only in cases (2) and (3) is he giving my meaning correctly. For I hold that the primary cause of trade depression is (3), aggravated at a later stage by (2). It is only in the event of efforts by the banking system to dispel the depression that (1) is likely to result. And whilst it is true that, if the *total* quantity of money is constant, an increase in inactive deposits may, by reason of its being a reflection of a decrease in the active deposits, be a *symptom* of depression, yet action by the banking system to *decrease* the volume of inactive deposits would (*cet. par.*) aggravate the depression. Yet elsewhere Mr. Robertson seems to mean by "hoarding" case (1), in which case he is adopting the mistaken interpretation of my views which I have attributed to "some readers' on p. 416.

13. I do not doubt that I am open to much criticism for inconsistency in language and in detail. I know only too well how much better and how much more accurately the argument might be expressed. But I am sure that Mr. Robertson's difficulties are mainly due, not to these imperfections, but to our minds not having met as yet on certain large issues. I have therefore endeavoured to confine myself mainly to these, because, if we could get clear about them, many of my inconsistencies, both real and apparent, would cease to be troublesome; for Mr. Robertson would then readily see for himself what I meant to say or should have said consistently with my own principles.

J. M. KEYNES

THE REPORT OF THE MACMILLAN COMMITTEE

THE long-awaited Report[1] of this Committee, round which rumour has so long been busy, has the characteristics of simplicity and complexity at the same time. There is a main Report signed by all members except one; there are addenda by various members and also reservations on those addenda; and there are reservations proper; there is a note of dissent which, if it had been signed by more than one, would have been a minority Report, and there are important appendices and tables. But in all other respects the scheme of the Report is simple.

Part I is historical and descriptive. Part II contains a review of recent events of economic tendencies, classed under the title "The Main Objectives of the Monetary System," which are, of course, although descriptive, in the nature of conclusions; there are proposals relating to international monetary policy; proposals relating to domestic monetary policy; to capital for home investment and statistics. These five chapters are classed as conclusions and recommendations.

It was something of a triumph to get the whole of this matter signed by all the Commission except one. It was only rendered possible, apparently, by allowing each of the members to have his head on matters not contained in this highest common factor, by means of four addenda, and, as to modifications of the material signed in the common Report, by way of four reservations. These ingenious concessions to individual idiosyncrasies enabled a solid basis to be given to the Report where otherwise it might have been pulverised into a succession of economic disquisitions and explosions. It is currently rumoured that the persons most closely associated with the draft descriptive matter were Professor Gregory, Mr. Keynes and Mr. Brand, but the Chairman hovered round at close quarters to make the work of the pundits intelligible to the average ordinary mind. It is indeed a pleasant occupation to speculate as to the origin or genesis of the particular sentences with these well-known different influences at work.

The Report had set out to enlighten the general uninstructed state of the public mind, but this was not found an object easy

[1] *Report of Committee on Finance and Industry* (Cmd. 3897), 1931, pp. 322, price 5s.

to realise, since the subject is peculiarly difficult to handle from a popular point of view. It may be said that to the patient ordinary reader there is more here of intelligible exposition than can be found anywhere else, and the Report is easily the best up-to-date text-book on the financial system. The description of the current working of the Bank of England and Joint Stock Banks, the Accepting Houses, and of the discount market is exceedingly well done and will form the basis of educational work for many years to come. It is preceded by a short but effective statement of the general characteristics of monetary systems and the international gold standard, with the " rules of the game " laid down definitely as

(a) a common agreement as to its aims;
(b) an object of policy to secure stability of prices as well as guaranteeing stability of exchange; and
(c) the avoidance of action by individual countries which by repercussion imperils the stability of the price level elsewhere.

It can be said with confidence that a recognition of these rules on a wide scale would be as great a formal act as the Genoa resolutions.

There is a good deal of new matter, derived from the bankers' evidence, which is essential to a fundamental understanding of recent developments, *e.g.* the growth in the proportion of deposit accounts to the total, from 32·8 per cent. in 1919 to 47·1 in 1930, and the details of foreign holdings in deposits and sterling bills in London since 1927. The chief public service which this section renders is the clear exposition of the position of the Bank of England in control of the cash basis and its relation to the volume of deposits; and the extent of the creation of credit by the joint stock banks and its effect on the level of prices.

Chapter V deals with the " Special Problems of Great Britain " and lays particular stress upon our position prior to the world depression. The changes in industrial demand and the interruptions of exports are described, but there is an important conclusion, that " the shortcomings of this country in technical efficiency as distinct from organisation may not have been so great or have played so large a part in producing our present difficulties as is sometimes supposed." This is based upon the fact that we have retained even such a proportion of our exports of manufactured goods as our sadly reduced totals represent, although our hourly time rate of wages is 30 per cent. higher than

in Germany, 70 per cent. higher than in France and 132 per cent. higher than in Italy. Very striking figures are given in an Appendix showing that the "hourly output per head in 1929 may have been quite 10 per cent. greater than in 1924 and 33 per cent. greater than in 1907." This table is so important that it needs the closest examination, and I confess to some scepticism as to the validity of its results, and should welcome some more definite official sponsorship and a check by alternate approaches. At the same time one is bound to recognise the soundness of the contention that unless some substantial improvement had taken place, British employers could not have paid in 1929 real wages 10 per cent. higher than in 1924. One caveat should be entered to the use of increased output per head figures as indicative of what can be afforded in additional real wages, should any tendency to use these as a test be applied. The increase is often brought about by large expenditure of new capital which has to be remunerated out of the increase per head also. Indeed, it is often because of the rapidly increasing real labour cost, that capital improvements, hitherto uneconomic, are made. As the number of persons employed to produce a given output is reduced by the introduction of labour-saving devices, the product per head naturally rises, but the new silent partner has to be paid too, and the amount actually available for increased real wages is the output per head *after* paying for additional capital *and* restoring the transfer of real purchasing-power from the residual profits to the remaining workers in their higher real wage due to the fall in the price-level. In actual fact this last transfer has only been imperfectly effected, and it is fortunate that the ordinary shareholder is worse off and the wage-earner better off, even when the wage-earner has contributed nothing by additional personal skill or assiduity to the increased output per head. This section closes by attributing the difficulties of those of our industries which are either substantially dependent on exports (or are exposed to the competition of foreign imports) "largely to the fact that sterling costs did not prove adjustable" on the return to the gold standard, "and still more so to the heavy fall in world prices which has since occurred. At least one of the signatories must have felt, with myself, a melancholy satisfaction at this justification of the lone utterances of six years ago.

Chapter VI treats of the "Disequilibrium between Demand and Supply," with special reference to the difficulties of the raw material producing countries, and artificial restrictions.

Chapter VII, on "Gold and its Distribution," contains much

familiar matter attractively arranged: available figures serve as a warning that "unless definite steps are taken to avoid the danger, a fall of prices due to insufficiency of gold will undoubtedly occur in the future"; but the position is not hopeless, and can be reduced to unimportance by goodwill and understanding. Changes in banking ratios and banking practices which will achieve this are indicated. The boldest advice that here emerges is the revolutionary proposal to hold gold reserves not primarily as a support of internal purchasing-power, but to meet deficiencies on the international trade balances. Thus, in the dual and often incompatible rôles of measure of value and settlement of balances, a definite choice is, for the first time in an authoritative sense, made in priority for the latter.

In discussing maldistribution, the effects of war debts not received in goods are washed out, but an important further point is made: "The effect on prices internationally of an increased preference for employing resources in the purchase of liquid claims, including gold, is the same as is that of hoarding in a primitive community." Excessive liquidity is more responsible than gold shortage. It is hard to *correct* maldistribution—its causes should be removed.

After Chapter VIII has given a description of the sequence of events since 1925, with particular reference to the boom in the United States, French monetary policy, and the methods of the Bank of England in meeting the return to gold and cheap money in America in 1927, the important conclusion is reached: "After all allowances for these unusual or novel manifestations of the world order have been made, it is clear, nevertheless, that the working of the international gold standard requires, in the modern world, a realisation that the forces making for disequilibrium are very powerful, and that any mechanical application of the purely empirical rules derived from pre-war experience could easily lead to very grave and unsuspected results."

Chapter IX deals with "The Course of International Investment," and reaches the conclusion that when equilibrium is profoundly upset between creditor and debtor nations, the whole world suffers, for adjustment by small price changes or short-money movements is inadequate. Deflation occurs in debtor countries, and then creditors are affected by their depression and the influx of gold. "Here is, perhaps, the major part of the immediate explanation of the collapse of international prices." This collapse is next examined, and the social and industrial consequences set out on recognised lines, yet lines that must be

reiterated *ad nauseam* before they will be sufficiently impressed on the public mind. "The recent increase in unemployment in every part of the world, accompanied by a decline in production, can in the main be attributed to the fall in the level of prices, *unaccompanied by a proportionate reduction of money costs, however brought about.*"

This is the key to the Report, to the real situation, and probably to the only way out. But here the signatories hesitate; some gamble against it, and their stakes are high. Once again liquidity is urged as a drawback—the reluctance to venture savings is as great a cause of deepening the depression as the reluctance of the entrepreneur to borrow and extend. There is a healthy recognition of the fact that the social consequences of falling prices may be more serious than the economic. for the delicate questions of equity are most difficult to resolve. The problems raised "transcend in importance any others of our time and generation, and we have regarded it as our main task to expound their significance and to bring forward suggestions for their solution."

In the concluding section of the expository part, "The Influence of Monetary Policy on the Price-level," the Report breaks ground which is quite new in banking literature. The Committee take the view that the price-level is the outcome of interaction between monetary and non-monetary factors, and the recent collapse is a monetary phenomenon resulting from the monetary system failing "to solve successfully a problem of unprecedented difficulty and complexity set it by a conjunction of highly intractable phenomena." No one is blamed: the problem, even if it was theoretically practicable—which is not asserted—might have required a degree of knowledge, experience and prescience which no one "could have been expected to possess." For the task of the monetary system is, by working on the volume of credit, to balance the effects of non-monetary factors in causing instability in the price-level. In this task the bank rate is stated to have functions which have certainly never been attributed to it in any responsible or official literature before. But this "delicate and beautiful instrument" has certain limitations, if acting by itself. (i) Public psychology about changes in the rate is on wrong lines and needs educating; (ii) policy really demands greater power of diagnosis, and less dependence upon such a late symptom as the movement of gold; (iii) it is better adapted to stability of exchanges than of business—indeed the maintenance of stable exchanges in itself

is troublesome, for it " has the effect of transmitting to our credit system any serious disturbances, of a cyclical character or otherwise, which may be affecting the rest of the world." The theory of the supply of credit to business and enterprise is advanced—more advanced than has ever been put into practice for any length of time, and cannot possibly be summarised in a review. In any case, the Bank of England, with its main preoccupation of maintaining the gold value of sterling, could not have practised it. In discussing the influence of the banking system on investment the opinion is expressed that the " monetary authority is not so powerless as is sometimes supposed." In this section the hand of Mr. Keynes is very obvious, although it stops markedly short of the development of theory in his recent treatise. It marks a stage which probably no practical banker would himself have ventured to publish, but which, when drafted, a thoughtful and responsible banker would find it difficult not to sign.

Part II (Conclusions and Recommendations) opens with " The Gold Standard," and recommends that the time is not ripe to despair of its compatibility with internal blessedness—a gallant attempt must really be made to work it satisfactorily, since the international comity is a boon to be coveted. But devaluation gets short shrift, and systems of dual currency are not touched. Everything possible must be done to raise prices, by Central Bank action on international lines, and long-period stability must be avowedly accepted as their task. To this end a number of suggestions are made, but " if we have raised expectations that we shall be able to propose in our detailed recommendations a sure and certain means of attaining these objectives, we fear that such expectations will be disappointed." It is the *adoption of the objectives* that is the most important feature, not a map of an unknown course. Among the practical suggestions we find (*a*) agreement to keep gold out of active circulation, (*b*) elasticity —at present relaxation—in legal requirements for reserves, (*c*) permission to reckon balances with other central banks as equivalent to " home " gold, (*d*) power to expand deposits.

In discussing the obstacles facing central banks, the important point is brought out that the influx of short-term foreign balances under the " influence of a temporary attraction is, and always should be regarded as, the equivalent of a *negative* gold reserve, and consequently as a potential source of weakness." Events since the Report have amply justified this view. A pretty little lecture is read to bankers who do not like economic research, and

appear to want a quiet life, with a nice set of rule-of-thumb instruments, preferably not too new. "The management of currency and credit is essentially an art and not a science." The way is ungrateful, especially for a Central Bank. "If it attempts to curb an upward movement" it will "be criticised for cutting short the country's nascent prosperity"—*vide* the public indignation at any attempt to control the American boom. "There is no need to minimise the difficulty of the high enterprise which we should like to see the Central Banks of the world put in hand."

"The Proposals to meet the Present Emergency" include the steps to be taken by creditor countries in a greater willingness to buy and a greater willingness to lend, in which we may read, if we will, a reference to debts and high tariffs. A gloomy picture is painted for the debtor countries if they have to continue for another two years to part with gold on a large scale. This all demands not individual but concerted action. Then comes an insistence on the maintenance of abundant cheap credit, and inasmuch as good borrowers are scarce, "some of us think that in the domestic field it may be necessary to invoke governmental enterprise to break the vicious circle." There should be an international discussion on trade restoration, and perhaps a private International Corporation with large capital.

Space fails for the enumeration of the proposals relating to domestic monetary policy—the raising of the maximum for our note circulation to 400 million £, and the recognition of a lower limit of 75 million £ for the gold reserve—"increased resources and greater freedom." The fusion of the Banks' Issue and Banking Departments, and the freer use of the bank rate, a closer connection between the Central Bank and the deposit banks, with fuller statistical information for the regulation of the amount and direction of investment and widening or narrowing the margin between long-term and short-term rates of interest, are all technical means towards the avowed economic aims and need not detain us here. Nevertheless, a point of interest that ought not to be missed is the round condemnation of window-dressing by the Joint Stock Banks, which adds 75 million £ to their apparent cash reserves at the half-year, and 20 million £ in the monthly statements.

A long section on proposals relating to the Capital Market for home investment develops a project for a new type of financial organisation to facilitate industrial investment and make it as closely sponsored as the foreign bond market, more especially for

medium-sized businesses with no special public name. The relations between the banks and industry are closely examined, and the lack of facility for " intermediate credit " exposed. The final section is a valuable statement of new statistical information which is requisite regularly for the interpretation of financial movements and their guidance.

The worst that can be said about the Macmillan Report is that, in the face of our present tremendous and urgent problems, its recommendations for immediate relief seem feeble and nerveless; but no one ought to make this criticism unless he is prepared to assert that there actually *exists* a field of active possibility which has been unexplored. If the land is bare, they cannot make it flow with milk and honey. Their best service is to expose its bareness and make us face realities. A juster criticism would be that the Committee as a whole, looking round at all possible expedients, had no common agreement except that they were each and all so nasty and unwelcome that they one and all exclaimed, " We surely cannot be doomed to such paths: we must conclude that Providence will spare us and the price-level *must* rise and save us from such decisions." But the right thing to say about this Report is that it dispels delusions about easy remedies, that its long-run programme is a great public service, and that, above all, it is the first financial document that looks *forwards* instead of backwards. Up to now, to tinker with the old order, adjust its temporary dislocations, and close the old ranks in the old way has been the accepted approach to our problems. This Report shows that the world we are to live in is a new one, with new problems, and a technique to be worked out. It offers some fine broad approximations to that technique, but bids us above all to be vigilant, experimental and courageous, because we shall meet the new and strange at every turn. Certainly, it *reckons* for the interaction between industry and money in a way that no report has hitherto done. At the same time it is practical enough to recognise human limitations, and to offer no undue shocks to the virtues of continuity.

In the Addenda we find the individuals taking to themselves wings, and the most interesting expedients and theories are to be found here. Different as they may be, they are together of a high order, and there is not one that does not contain valuable statements and views. The " six " deal with a bolder policy of expansion of domestic credit, and they analyse the alternatives of (i) a reduction of salaries and wages, (ii) control of imports and aids to exports, and (iii) domestic enterprise assisted by State

action. On the whole they discount considerably the value of reductions in money wages, fearing a cumulative and continuous rivalry, and also fixing upon ourselves a price-level at which our social debt burdens will be unbearable. In this section, in my judgment, they over-state the extent to which wage reduction is a *destruction* of purchasing power, whereas, as Mr. Brand makes clear, in his admirably executed solo, they are primarily a *redistribution* of purchasing power, which just relaxes the pressure from the mainspring, by making the profit element once more appear. Redistribution, by price fall, is unimportant, if it did not destroy incentive and scope for the very life of the whole organism.

It was not to be expected that the main Report would deal even indirectly with a tariff either as an industrial remedy, a budgetary expedient, or a monetary device. But the Addendum of the " Six " touches broadly upon a tariff-plus-bounty scheme as a substitute for devaluation and having the advantage that it would leave our sterling international obligations unchanged in terms of gold, with the avowed object also of reducing the real value of given money incomes, whether wages or rentiers' interest. In the general discussion of import restriction, or other interference with Free Trade unrestricted, it stresses the argument against the necessary consequence of a mere diversion of resources *at the present moment*, owing to the fact that our productive resources are not, and are unlikely to be, fully employed—in other words, it throws the rectification in the balance of trade equation not upon goods and services at all, but upon the interest and capital items. It deals lightly with the counter considerations (*a*) that foreign *buying power* would be so curtailed as to diminish our export market and (*b*) that the cost of production of our exports would be increased, (*c*) that the cost of living would be increased. For the first it makes the point briefly that an import of gold might certainly cause a contraction of credit abroad, but if the improved balance of trade were used to expand investment at home, our imports might even be increased in a way that otherwise might have meant a loss of gold, and, moreover, we could increase our foreign lending. For the effect upon export costs it is urged that " a direct subsidy would be open to various practical objections. But it would not be difficult to find other ways of giving back to the export industries advantages at least equal to the comparatively small disadvantages. . . ." The cost of living objection is met by asking for a contrast with alternative proposals, and a reference to improved employment. Two of the six signatories

make a reservation to the effect that they have no liking for the proposals but must accept them as a *pis aller*. The objection of " irremovability " is not touched. Mr. Brand's addendum, while obviously reluctant, admits that in order to protect our exchanges and " to enable the Bank of England to maintain credit conditions favourable to home industry, it might become necessary to take steps to restrict imports either by a general tariff on all imports, or by a more specialised protective tariff, or by some restriction of unnecessary imports. His outlook is restricted to the monetary problem." But a general reduction of efficiency and money costs is greatly preferred and indeed is necessary to give an impetus to exports, despite all that a tariff might do. Sir W. Raine states in unequivocal terms the case, *at the outset*, for a revenue duty on all imported manufactures (with a Dominion preference), not strictly on the monetary dilemma, but on fairly conventional protection and " fair trade " grounds, the " development of the home market " argument, and particularly to create an atmosphere of confidence. Lord Bradbury's memorandum of dissent refers to tariffs as a mere enlargement of the list of sheltered trades. It is in Professor Gregory's addendum that the subject finds its fullest treatment, but he also practically confines it to the monetary aspect. He urges that the tariff cannot meet the task required or remove the fundamental defect unless it is constantly being adjusted, and adjustment would create new difficulties. He makes the curious comment. " Moreover, a review of history does not warrant giving the tariff a very high place as a method of relief from monetary distress." Has there ever been anything approaching an historical parallel to the British conditions now under discussion? Has a tariff ever been tried or suggested before to meet them? His first substantial objection is the argument for probable permanence, and he demurs to the " emergency " idea. The tariff would tend to perpetuate disparities in costs, and so long as these existed, retention would be urged. But the real ground for the emergency measure has not been put forward on these conventional lines, but the excess of our own real costs at one period over those at another. He rightly urges that if the revival of price does not come about, the tariff becomes permanent, and puts the case for political ineptitude very forcibly. Nowhere does he examine the possibilities of new political devices to overcome it. His second argument is that a spurious equilibrium would result, causing a new series of disequilibria, because of the attempt to adjust wage rates to the rise in the cost of living, whereas it is of the essence of the proposal

that so long as real wage rates are not *below* the real wage rates prior to the depression in prices, no such adjustments will be necessary or even demanded. The rentier and the wage-earner cling to their monetary rewards and resist, to the uttermost, downward "adjustments" to secure constant real rewards, but the essence of the present case is that a rise in the cost of living, so long as it is within the recent fall, will be conceded without any monetary change. It is beside the point to argue what will happen if this assumption is incorrect, and it is the correctness of this assumption, on industrial, psychological, and political grounds, that ought to be examined. The third contention is that the scheme is either impracticable, or else unremunerative from a budgetary point of view. He foresees a complicated impost with considerable reactions in competition in export markets.

Taken as a whole the Report cannot be said to give a very complete or satisfactory examination of the economics of a special tariff in the present conditions of British finance and trade. The economic examination should *assume* the political difficulty as solved, and report faithfully on the result, and, moreover, it should not reassert as *necessary*, complications which the proposal is designed to avoid.

Lord Bradbury's memorandum of dissent is rather putting the beat on different notes in the bar, *e.g.* the burden of unproductive debt, over-lavish expenditure, excessive distributive costs, and an attempt to maintain too high a standard of living. The remedies are mainly outside the Committee's terms of reference. He does not seem to object to the objectives of the Committee for the gold standard, but they are "in conception too ambitious and for application too nebulous." The international objectives really involve fixing an index figure for gold, and this with its consequentials will hardly "come within the range of practical international politics during the lifetime of the youngest of us." The treatment of the raising of the level of prices is at once "too sweeping and too sketchy." His positive contributions are, that (*a*) we adhere to the gold standard and try to make it work better; (*b*) that we make no fundamental changes in our domestic currency and banking method—a little touching-up will do; (*c*) that we provide better machinery for investment in domestic industry; (*d*) Gladstonian economy in State expenditure. He concludes that the real causes of our discontent are in the main outside the domain of money and credit. However limited may appear the use of this survey, we cannot but admit it to be well reasoned, and perhaps to have a certain warning value, though personally I

should have preferred it if he had come out of the Victorian era and faced the same kind of future as his colleagues.

It seemed as if, during its course the Macmillan Committee had been badly bunkered, but, while it has performed no miracles, it has emerged with enduring credit, still perhaps in the rough, but with a definite idea as to the direction of the green, and a brave array of clubs.

J. C. STAMP

REVIEWS

Britain and World Trade and other Economic Essays. By A. LOVEDAY, Head of the Economic Intelligence Service of the League of Nations Secretariat. (London: Longmans, Green & Co., 1931. Pp. xxi + 229. 10*s.* 6*d.*)

AMONG the attempts which have been made by eminent economists in recent months to help us to find out where we are and whither we are going, here is assuredly one of the most full of meat and worthy of careful and continued study. Not that Mr. Loveday is concerned primarily with the great slump, which had scarcely made its full force apparent when the last of these essays was written; but his analysis of the economic make-up of the post-war world and of Britain's place therein is none the less searching on that account, and it is at least arguable that it does not need much reconsideration in the light of quite recent events. Looking down upon all the plains of Europe from his Alpine vantage-ground, and handling gracefully and with confidence that complicated fabric of world statistics which he has done so much to weave, Mr. Loveday has had opportunities for observation worthy of the keen and reflective judgment which he has brought to bear on what he has observed; and his conclusions, while they have not all remained unchallenged, have rightly already won very considerable attention. There is the less need to present them in detail here. Readers of the ECONOMIC JOURNAL will know already that Mr. Loveday holds that the main economic problems with which the world is now increasingly confronted "emerge not from a failure to recover from the immediate effects of the war, but from the success with which the efforts made have been crowned"—in other words, from the rapid growth in wealth, or (as it is no doubt more fitting to say in the trough of a slump) in the potentialities of wealth. This rapid growth in individual wealth, itself the product of the triumphs of applied science and of the declining rate of growth of population, has produced a change in the character of demand: the demand for the simpler staples and necessaries lags behind the growth of wealth, and is replaced by a demand for comforts and enjoyments which is more fickle and unstable in its nature, and calls for ever greater versa-

tility and power of adaptation on the part of the producer. Hence the troubles of the producers of cereals and of the simpler manufactured goods; hence also the efforts to hypnotise demand by advertisement and to gain protection against its vagaries by cartellisation.

To the present reviewer it does not seem doubtful that Mr. Loveday is right in thus tracing the main economic disorders of the world—not excluding the trade slump itself—to imperfect development of our organs for digesting wealth. About some of the subsidiary generalisations which arise in the course of his analysis it is hard to feel so confident. Does not Mr. Loveday under-estimate (pp. 50, 125) the forces tending to depress the standard of life of the agriculturist? Is it really certain (p. 92) that a greater equalisation of the distribution of income tends to promote instability of demand? The opposite thesis would seem to be equally plausible—that it is the relatively rich who exercise both those luxury-demands which Mr. Loveday characterises as fickle and those variable demands for capital goods which are at the root of cyclical fluctuation, while the demands of the relatively poor are comparatively stable and calculable; so that a transfer of income from the former to the latter would, taken by itself, make for increased stability. But again, is it not perhaps the physical nature of the "new" consumers' goods, approximating as they do in size and durability to capital instruments, rather than the mere fact that they are objects of luxury, that renders the demand for them unstable? Finally, there will no doubt be many to question Mr. Loveday's confident inference, from the greater growth in 1925–9 of trade than of production, that the future holds in store a great expansion of international trade, and an eagerness on the part of manufacturers in all lands to strike off the shackles in which they have bound themselves in recent years. Whatever our judgment on these matters, these instances serve to show the rich food for reflection which the essays entitled "A Record of Progress, 1925–29" and "Quo Vadimus?" contain.

When Mr. Loveday turns from the world scheme to Britain's place in it his conclusions are equally striking and worthy of attention—and perhaps even more likely to provoke controversy. Britain, he holds, has failed to adapt herself to the changing conditions of the world, and it is this lack of adaptability, this rigidity in the various portions of her economic mechanism, which was at the root of her troubles in 1924–9 rather than currency policy or any of the special disabilities so often pleaded in her defence. Mr. Loveday has no difficulty in showing that in those years the

growth of our exports, not only in the old staple industries, but in the more specialised trades with which the future lies, failed to keep pace not merely with the growth in Germany, emerging out of her slough of despond and stung by the gadfly of reparations, but with that in most other industrial countries as well. It is indeed difficult, as it has been for many decades, to decide how many tears it is appropriate to shed over this *relative* decline. It would be comic, if it were not so disconcerting, to find what opposite conclusions two authorities so much akin in general outlook on the world as Mr. Loveday and Sir Walter Layton [1] can draw from the same sets of figures. Of the exports of electrical machinery and apparatus, observes Mr. Loveday, the British share was very much lower in 1928 than in 1924, and by 1929 was less than in 1913. "In electrical machinery," writes Sir Walter, "we have kept well abreast of our competitors." "A still more striking example of recent decline . . . is afforded by the artificial silk industry," groans Mr. Loveday; "the British share in the quantity of this product exported by the leading countries was almost cut in half between 1925 and 1929." "In the production of quasi-luxuries," chirps Sir Walter, "we are keeping pace with a rapidly rising demand. . . . Our exports of artificial silk tissues rose from £332,000 in 1926 to £925,000 in 1929." "Others have taken the place which might have been ours in, for instance, the markets for wireless or photographic apparatus . . . etc," mourns Mr. Loveday. In the production of "diversified and specialised products, the making of which demands a high degree of skill. . . . Britain still leads the field," proclaims Sir Walter, singling out as an instance the supply of photographic lenses to Hollywood. Poor John Bull! No wonder he rubs his head, and having obtained from his college-bred son a translation of Mr. Loveday's question *Quo Vadimus?* remains uncertain whether the answer is heaven or hell.

This much, I think, can be said—that some of Mr. Loveday's gloomy conclusions need reconsideration in the light of the information which has lately become available about the increase in British productivity per head between 1924 and 1929, and especially during the latter year. Nor do I feel sure that he assesses at its true weight the turn of the terms of trade in favour of manufacturing countries, which he seems to regard as having been practically cancelled by 1929, and the renewal of which during the slump he asserts to be only a flash in the pan. Again, to a reader coming fresh from Mr. Loveday's strictures on the immobility of labour the

[1] *The Economic Situation of Great Britain* (London General Press, May 1931).

Ministry of Labour figures of the changes in the occupational distribution of labour in recent years would bring, I think, a shock of relieved surprise. Nor does even so eminent a master of statistics seem to be exempt (pp. 172–5) from the temptation, to which members of Parliament and bank chairmen are naturally an easy prey, to bring the Board of Trade index of wholesale prices into collocation with money wage rates as though it were an index of the prices received by British manufacturers for their products.

Further, behind all such questions of the interpretation of facts and figures lie, as it seems to me, unsettled questions of judgment—almost of aesthetics. How far, if we were free to choose, should we wish to see Britain relying for her imported daily bread on the exploitation of her rentier position, or how far should we prefer her to earn it by the sweat of her brow, and to keep, as a symbol and token of her greatness, the whole account of interest-receipt and new foreign investment in a separate—almost a non-economic—ledger? It almost seems to be some such course as this that Mr. Brand, for instance, to judge from his interesting addendum to the Macmillan Committee Report, in his heart desires. Perhaps the bottom of a slump is not a suitable moment to attempt to assess either our desires or our powers; but for all who are pondering on such matters Mr. Loveday's book contains a quite indispensable mass of information and suggestion and argument. And when all qualifications are made the cumulative weight of the evidence is still, I think, on the side of his conclusion that in the mutual relations of finance, industry and labour in the Britain of 1924–9 there was a good deal of avoidable costiveness which called, and still calls, for considerable doses of such medicine as a Mussolini, no doubt, would be delighted to supply.

D. H. ROBERTSON

Economic Fragments. By D. H. ROBERTSON. (London: P. S. King & Son, Ltd. 1931. Pp. viii + 267. 10*s.* 6*d.*)

To adapt a pen at its best sluggish to the flights of one who can prove discipleship of Lewis Carroll and Alfred Marshall in the same breath, and trips from light fancy to devastating solidity overpage, is too unfair a task. Let us begin, heavily, with the solid group.

The first fragment is on "Economic Incentives," and treats of the supply of the four agents of production. After an extremely detailed analysis of the supply of labour, Mr. Robertson finds that the amount of labour available from all sources shows little, if any, response to the *incentive* of a change in reward. Similarly

in the case of other agents: their supply constantly expands, not owing to any psychic reaction to an enhanced reward, but because the reward itself enlarges the *source* of the supply. A high interest rate does not persuade savers to set proportionately more of their incomes aside so much as it endows them with a larger income from which to save.

The discussions opened by the next essay are still faintly reverberating. In itself it is an attack on every point in the Colwyn Committee Report, showing that income tax does not affect prices. Victory seemed to be at least momentarily with the attack; but it led to a series of counterblows, and, in the end, provoked the inevitable discussion: What does affect the supply price of anything? Here the victor, in very good company (see recent numbers of the ECONOMIC JOURNAL), and with a perfect grace, and with the rest of us, falters a little. This second essay at the beginning seems to be contradicting the first; it seems to be saying that, despite the Colwyn Committee, income tax does raise prices. But according to the earlier thesis, the entrepreneur is not much affected by his pecuniary fate, and, tax or no tax, will continue producing much as before; if this is so, and if the tax does not affect his prime costs, we remain still groping for a way in which it may raise prices. Reassurance comes, however, at the end, when we are told that faulty conclusions do not inevitably follow fragile theory.

Whatever else Mr. Robertson achieves by his raids, he certainly stirs the Viking in others. The last article of this group is on "Wage Grumbles," and defends the marginal productivity theory of wages against five groups of assailants. Attack being the best defence, all five are harried and, surely, except one, perhaps, whose trenches are very deep, put to flight. Yet, whilst enjoying the spectacle, the onlooker cannot avoid the sense that these guerilla movements are rather obscuring. What *is* this theory behind the defence? Must not the grumblers rumble indefinitely unless the theory is collected from the various appendices and footnotes where it now lies and given a solid body? Could not a sixth grumble-group arise and say, for instance, that wages seem always in the past to have increased more as a result of improved instruments than as a consequence of growing labour productivity, marginal or other; and that if it is desired to explain anything about the determinants of wages (this being the chief end of a theory), it is necessary to begin at several points utterly remote from the factor labour, *e.g.* discoveries of materials, machines and supermen, as long-run factors; and money, as the

short-run factor? Possibly this is nonsense exceeding that of some of the other five; or, if not, Marshall must already have said it; but such difficulties can only be dispersed if the orthodox theory is put together and shown whole; and, humbly, and with the conviction that there is in fact the whole theory for the seeking, we would urgently crave this favour.

Despite the motto of the book, quoted from Tweedledum, "Every one of these things has got to go on, somehow or other," the pinning and tying of the strings is most neatly done. Even where the transition is from Wages Theory to a purely descriptive treatment of the Coal Strike and General Strike, and thence to the Slump in Shipping and Shipbuilding, and on to Unemployment and Family Endowment and the Malthusian Devil, there are links and threads which create unity at least in the "atmosphere" of the work. The expressed hope that the book will be "intelligible and interesting to the general reader as well" is realised without, one feels, diminishing the scientific value of these short stories.

Eighteen reviews of the works of others appear in the book, grouped according to subject and having a continuity of thought scarcely to be expected in such commentaries. Here the touch is of a sensitivity that to the reviewer's reviewer, who has to strive after it, is almost agony, so intangible is its quality. Shaw, Wells, Keynes, Ford, each in turn is matched, mood for mood. There is a versatility and style which lies almost unsuspected when hidden beneath the heavy phrases of the dismal science; it would be great unkindness to limit it permanently to this use. Perhaps its strength is greatest in veneration; for none in reading the review of the *Memorials of Alfred Marshall* could escape the compulsion to pay deep tribute. Three pre-war speculative essays close the volume most fittingly, since they strongly whet the appetite for more.

J. R. BELLERBY

A Contributive Society. By J. R. BELLERBY. (London: Education Services. 1930. Pp. xvi + 224. 7*s.* 6*d.*)

"THERE appear to be two chief difficulties confronting those who are anxious to see some change in the 'economic system.' The first is that of visualising a system which would in all ways reflect or express their ideal; the second is that of determining what steps may be taken, here and now, towards the attainment of the ideal" (p. vii). In this book Professor Bellerby analyses the imperfections of the existing economic system, expresses in

general terms what he considers to be the conditions essential to an ideal system, and then attempts to answer the difficult question : " How far is it possible, immediately, to press forward towards the ideal ? " (p. xi). It is in answering this question that Professor Bellerby differs most fundamentally from the Marxists, for, in so far as the ideal is concerned, he has much in common with them. The Marxian ideal of a State in which each contributes according to his ability and receives according to his needs is very close indeed to Professor Bellerby's ideal of " a community of men whose accepted aim was to contribute their maximum to the consumption of the entire group " (p. xi). But while the Marxists maintain that the transition from the present state of society to the ideal must take place primarily through a change in institutions, thus causing the contributive spirit to develop as a consequence, Professor Bellerby envisages a transition in which individuals must develop the contributive spirit and thus alter institutions. He considers that " undoubtedly, certain methods of social reconstruction, the legislative and the educational, do make for the greatest possible width of advance; but the advance is correspondingly narrow in depth. . . . There is, however, a second possible way of advance. It consists in the establishment of small pockets of society, groups which are bent on making personal experiment towards some social model " (p. xii). It is this method which appears to the author to be most consistent with the ideal before him.

" For some reason, not readily understood, the question of the underlying driving force of industry appears to have been largely omitted from the sphere of 'economics.' The tendency has been to regard this subject as falling within the scope of ethics." But " sooner or later the economist or social leader who recommends new economic mechanism without reference to the power available to drive it will come to be judged as, say, an engineer who builds machinery for which no suitable form of power can be found " (p. 5). We may see the point of this statement of the author if we ask, for example, how far the orthodox criticisms of socialism are only justified on the assumption that human motive in the economic life of a socialist community will be no different from the motive underlying the economic life of an individualist society. The assumption of orthodox economists, that self-interest is the prime mover of all individuals, while true to some extent in the economic life of an individualist community, might no longer be true in a community based on different principles from those commonly accepted

to-day. Professor Bellerby readily admits that "the grip of self-interest . . . is exceedingly tenacious; for its foundations are laid in a series of ever-present and compelling bodily cravings. . . . It does not necessarily follow, however, that because self-interest has a psychological basis which is permanent, it will always be dominant" (p. 22). It may be quite impossible for many of us to believe that individuals can ever be prompted in their lives by any motive, ultimately, other than the desire for satisfaction through self-expression; but this does not imply that self-expression cannot take other forms than the personal accumulation of wealth; it may take the form of making the maximum contribution to general welfare if this activity is believed to be worth more than mere acquisition. The business man who has "made his pile" rarely retires from business. Not because his material needs are not yet satisfied, but because in order to feel that he is a satisfactory member of society he must be accumulating wealth. If the measure of satisfactoriness were the amount contributed and not the amount acquired, the motive governing production might alter in a very short time, as has doubtlessly occurred to a considerable extent in Russia. In finding the root of the evils of the present economic system in human motive the author challenges the most fundamental assumption of orthodox economics. He puts a very strong case for a reconsideration of the value of this assumption if we visualise society as a changing organism in every way, and not as one in which the most anti-social of human characteristics cannot change.

We now come to the principles to be put into effect by those who, in society as it exists to-day, accept the ideal of "maximum contribution" and desire to bring into existence a community in which this is the ruling motive of human action. "Since it is to the community as a whole that the gift is to be made, the contributor necessarily ranks himself equally with all others for benefits; and he attempts to assess his share by making some estimate of the 'average wage.' The attempt to limit consumption to this average, whilst following naturally upon any contributive urge, might nevertheless in some cases, by its reaction on the individual, reduce his power to serve; and in such cases 'maximum contribution' would involve consumption greater than the average" (p. 139). In making this concession it may appear that Professor Bellerby is admitting the validity of the excuse which has been given for every act of exploitation that has ever been perpetrated, but it may be replied that if the aim of the individual is maximum contribution, then he never will

increase his consumption beyond the point at which he believes it will help him. The question is, will his belief be affected by his desires? and this question cannot be answered with certainty. Some doubt may also be felt as to the "average wage" basis of income. Why not make it average income, for example, in which case the personal income would be much less? Here it seems that the limitation of income is only the material sign of a change of motive; if the motive has really changed there is no doubt that the individual will limit his consumption to a minimum, whereas if the motive has not really been altered, then, to whatever extent he limits his income, he will, in fact, be able to gain more than the average material satisfaction by various subversive means. It appears that too much stress should not be laid on the actual material limitations which Professor Bellerby suggests.

Given that a Society of individuals accepting the principle of maximum contribution and the average wage has been formed, what kind of work are they to undertake in an acquisitive community? In answering this question it is suggested that they should take part in ordinary economic life, with certain limitations. "If any member were an architect, or a teacher, or a welfare worker, or a manufacturer of artistic wares, he would be contributing directly to the stated aims of the Society. Another method would be through deriving funds from work in industry and devoting them to the 'common purposes'" (p. 153) of the Society. "Property should be held in such a way that it would yield most benefit, present and future. During early life much might be held in private hands, so that it might be transferred readily from use to use" (p. 193). Inheritance would be eliminated, but the Society would provide insurances for its members. In industrial activity socially-harmful trades would be avoided, competition as a means to fostering enterprise and ability would be utilised, but would give way to co-operation wherever it proved unsatisfactory. "In industrial relations the attempt" would be made "to arrive at a position in which all persons share the ownership of, and the responsibility for, industry; and the creation of an attitude to production such that every business unit, as a body, becomes a public service" (p. 194) would be fostered. The question, to what extent the Society would be justified in benefiting from the profits gained by individual members, is unfortunately not discussed. The conflict which might arise between the duty of a member to the Society whose only aim was to maximise its contribution to the community in the long run, and his obligations direct to the community through his work, appears hardly

to have been considered, though the solution of this problem is essential to any satisfactory working of the Society. For example, if the Society were greatly in need of funds for important social work, would its members be justified in raising the prices of their services to the community in order that these funds be obtained, or would this constitute an unjustifiable exploitation of the community for the benefit of the Society? Societies of this kind have existed in the past in isolation, so that the methods of the acquisitive world could be completely renounced. In bringing his Society into close contact with economic life, Professor Bellerby certainly increases its power to influence that life, but the need for compromises with the desire for acquisition is at the same time substantially increased.

The Society could, as it grew, split up into self-governing units, distributed throughout the acquisitive community, in the form of "numerous separate, independent trusts, organised either on an industrial or on a social basis" (p. 197). These organisations would act as an example to other producing organisations and would recruit new members as their success became apparent. By degrees these larger units would be found to affect the State itself, though this stage of development is unfortunately very slightly considered by the author. He maintains that, "irrespective of the stage of growth reached in economic matters, there will still be a necessity for State organisation, law, and government, of much the same kind as that which exists now, so long as any form of disregard or carelessness prevails. . . . It follows, therefore, that the Contributive Society's organisation could never completely supplant that of the State" (p. 212). Unfortunately, the relationship which would exist between two powerful bodies of this kind is not discussed, except in so far as it is suggested that the branches of the Society would be law-abiding, tax-paying institutions. It may be doubted whether the Society and the State would not in fact become identical when the mass of the population had become members of the Society, for by then the community as a whole would have accepted the "contributive" principle and the maintaining of law and order would be no more than a process of administration.

Throughout the book the author has the needs of the individual at heart and deals interestingly with problems and experiments in education, the nature of self-interest, personality, the encouragement of artistic expression, and the danger of the desire for power as a substitute for the acquisitive motive. He covers a field far wider than that which is normally treated by orthodox economics.

In considering the position of Russia he states the fundamental difference between himself and the Marxists in the following words: "To attempt to force it (Communism) on a people at the point of the sword, as was done initially, is the most cynical form of contradiction" (p. 34). It may be asked here whether some compromise is not necessary between the two methods of attaining to the ideal society. While the contributive spirit is undoubtedly essential, is it not probably also essential that anti-social minorities should be compelled to conform to any widespread movement? And can it not be said that the Russian revolution was, in fact, a rather bloody instance of such coercion? The part to be played by Professor Bellerby's Society in the community of the future seems very analogous to the activity of the Communist Party in Russia to-day, with one difference, that the Communists do not restrict themselves only to conversion by example. In both cases we have what may be called "economic asceticism," that phenomenon which shows signs of spreading and bringing about the one change in "human nature" which has hitherto been considered by the mass of people to be impossible. It will be interesting to see to what extent the contributive society of the future will be indebted to the economic asceticism of the persuasive variety, and to what extent to the economic asceticism of the Communists, and to what extent a compromise between the two may be effected.

This book challenges the existing economic system, and finds strength in its sincerity. It should be inspiring to all those who have not been hardened by too long an acquaintance with the orthodox conception of human nature. Professor Bellerby is fair-minded, perhaps too fair-minded to have the maximum propaganda value, for he is acutely conscious of the problems with which his thesis confronts both us and him. For this reason, in certain places, an extreme broad-mindedness may give the impression of a lack of faith in the proposals made; which is a pity. Ultimately, Professor Bellerby is more than an economist, he is an artist in the widest sense of the term, and is aiming at an ideal far wider than anything which can be expressed in the limited terminology of economics. This ultimate ideal he calls the "Higher Beauty. By this is meant the art of expression of the whole body of the people, viewed as a harmony; a thing of infinite variety combined into one vast life symphony. It is the counterpart in man's activity of that of Nature, where infinitesimals and infinites contrast, and where nothing is so small as to be neglected and nothing so great as to overbear the whole. It is this human Higher Beauty that demands the contribution of

each artist; and it is this in the service of which each may acquire freedom, partly because its service means full outreaching, partly because it implies unity and not conflict with other effort" (p. 221).

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Youth and Power. By C. R. FAY. (London: Longmans, Green & Co. 1931. Pp. viii + 292. 10*s.* 6*d.*)

No one could be better qualified than Professor Fay, *à cheval* on two continents and two centuries, to see the problems of three countries, as he tells us in his Preface, from their own angles of approach. What is youth, a little disillusioned and deprived of its natural leaders who are sleeping in the graveyards of France, going to do with its power? What solutions will it find for the social and industrial problems of to-day? The remedies proposed are various. At the forefront we find the doctrine of greater consumption: pay the working man more and his wages will at once return in a beneficent stream to encourage production and further employment. This is "bald advocacy of greater employment through the magic of greater consumption at nobody's cost." In the last resort it merely bears evidence to Labour's dislike of a system of production based on profit-making. It disregards the fact that every rise in wages makes it harder for the employer to employ as many men as before, and blinds its adherents to the real cause of economic trouble—the collapse of man-power before machinery. In the past new inventions meant development, and labour-saving machinery was job-making machinery; to-day every improvement means a definite ousting of man from the scene of action.

There is not *one* problem of unemployment: there are a number of different problems. In the building trade the trouble is due partly to the poor performance of the workers; in cotton to unhealthy capitalisation in the past and the misfortune of dependence on Eastern markets; in coal, to stringency of capital and consequent lack of development. Taxation, *pace* the Colwyn Committee, must take its share of the blame. Accumulated wealth may well be able to make great contributions to the revenue year by year, but a damper is put on new growth. Rising costs are not, as Labour is inclined to believe, "piped through some mysterious channel on to the luxury fund of the very rich."

The upshot of the discussion is that youth cannot expect to

have a short cut to power. Bolshevism is dismissed in a very few sentences. It is not a menace to the world because, conceived in hatred and securing itself by force, it is sterile and therefore cannot spread. An Army Corps of Western bourgeoisie, recruited from short-sighted Bank clerks and stolid Trade-unionists, would walk through a whole army of Moscow's best, chiefly because the Russian conscript, imbued with Bolshevist philosophy, would inevitably shoot his officers in the back when they advanced to attack. But the majority of us live so heavily in the world of reality that we rarely rise to the thought of ultimate things. We treasure security, and here lies the main appeal of capitalism: the system works and pays its way, or at any rate sees that the way is paid somehow. But our great society cannot leave it at that. And so Professor Fay makes his appeal to youth: those who, like himself, are spiritually averse to the dominion of capitalism must show it constructively by creating alternatives which will pay their way. We have done it once, in 1844, and we can do it again in the field of semi-public enterprise, securing the co-operation of the working man by so improving technique as to stabilise his wages. But we must confine ourselves to essentials. The nationalisation of Banking is not a practical issue, while the nationalisation of Power is fundamental. An enthusiastic chapter describes the two strongest examples of nationalisation in the world: the Canadian Wheat Pool, an association of producers, and the Hydro-electric Power Commission of Ontario, an Association of consumers which in years to come will be the "tool case of a rational state socialism." Both render service at cost, and afford the most valuable and the most promising counterpoises to capitalism.

Professor Fay is essentially dynamic and always constructive, and frequently he intrigues the reader by suggestions which he side-tracks, presumably from want of space. Such is the statement, casually thrown out, that Great Britain would have no difficulty in producing all the food she requires in case of another war. Occasionally he assumes greater knowledge than can be expected of the average student, and there are places where his irony may not be understood and so miss its mark. Nor is it always easy to follow the order of his exposition—to understand, for instance, why we should pass from a "Note on the Belief in Immortality" to a discussion of the Classical Theory of International Trade. But if Professor Fay is frequently ironical he is never cynical, and his reply to the above criticism would probably be that he is inviting his readers to think, and indicating

for their guidance the path that others have trodden. So Adam Smith is the dynamic thinker who performed the prodigious feat of teaching nations to find power not in sword and shot but in the peaceful art of making a living. Marx was an incurable romantic, but out of the " preposterous idealism " of Owen there emerged the solid commonwealth of the Co-operative movement. And it is this solid commonwealth, illuminated by an idealism of his own which shines steadily through paradox and epigram, that Professor Fay offers to youth as the objective of its power.

H. REYNARD

The Economic Life of Soviet Russia. By CALVIN B. HOOVER. (London: Macmillan & Co. 1931. Pp. 361. 12*s.* 6*d.*)

" IT has always been assumed that the Soviet economic system would be successful because Communism was innately good, or that the Soviet system would fail because Communism was innately bad. . . . It is a comfortable attitude to maintain toward events which are occurring in the Soviet Union. . . . Although the Soviet civilisation is farther removed from the Utopia of the philosophers than the civilisation of Capitalism, the Soviet system nevertheless has possibilities of economic success great enough to constitute a menacing threat to the future of Capitalism " (p. 341). In a note to the passage quoted here from Professor Hoover's most valuable book, the author adds that Mr. Keynes approaches the same idea from another angle when he puts the question, whether the New Order in Russia is merely a materialistic improvement over Capitalism or is a new way of life.

The chapters on Organisation of Industry, Internal Trade, the Banking System, Foreign Trade and Money, are descriptive of the system, free investigation being still impossible. The efficiency, present or future, could not be tested. The student in this respect is unassisted, and will have to remember Professor Hoover's warnings, which we would have wished more insistent. Production statistics in quantities and money values are not comparable, either with the production of pre-war Russia or with the present production of other countries. The price index is almost worthless, since goods are rationed or unobtainable. Very little is left to positive statements, and a great deal for meditation. " The evidence of the eyes proved beyond doubt that capital construction on a large scale was actually taking place." But the evidence of the eyes is not sufficient to prove

whether the investment will pay. Professor Hoover also warns the reader very appropriately that profit is not the object of Soviet enterprises. It seems, however, that the credit reform of 1930 implies the admission of a complete confusion between money, cost and production. Lenin saw the essence of Socialism in accounting; it would follow that there is little of it in Moscow. The requisite of solvency in the credit system escapes even the most desperate blows of Stalin, despite the avowed "intention of the Supreme Economic Council to place every Combination, Trust, undertaking, and even the sections in factories on an individual accounting basis." Nor has the Bank reform "prevented inflation," though the Commissar for Finance has denied such statements. Indeed, very little information is obtainable as regards the economic results of the basic "constructive" elements of the Soviet system. One must hope that the chiefly descriptive period of investigation and the pseudo-statistical estimate of the gains and losses will some time be overcome. The author has managed to get somewhat closer to the collective farm, but even so his very instructive chapter on Agriculture culminates in sentences beginning with expressions such as "it is intended," "it is counted," "it is expected," "the question must at once be raised," and no positive answer, based on actual reliable economic data, can be given.

The Soviet system, owing to its very foundations—force and fear—can apparently not be treated as an economic subject. It is a fighting machine. The author repeatedly confirms this conception. The economic results are of secondary importance. But there are "possibilities." Of course there must be. Measured by capitalist standards, they ought to be immense. Stalin—"the Asiatic despot"—invests in rationalisation and industrialisation a large proportion of the national income, and a considerable amount in *Weltpolitik.* Foreign capital supports its gravedigger. Thus the operation must be successful, provided the regime proves stable. Measured by Socialist and Marxian standards, the possibilities are less rosy.

Otto Bauer, in 1919, has anticipated the inevitable clash between the would-be proletarian dictatorship and the peasants, and he foresaw that the "despots" would have to force the peasants into collective farms. Kautsky is no less positive in his recent book. It would seem to the Socialists that Stalin would share the fate of Adoniram, who was "over the tribute" or levy of forced labour.

The vulnerable point of the Soviet system lies in the political

centre. Even after signal victories it may disintegrate quickly. Whether that would be for the better or for the worse of mankind everyone has to find out for himself. Professor Hoover's balance-sheet on the Soviet system is interesting though not established in a uniform currency.

On the credit side we find:

(1) If the present crisis is passed, the Soviet Union within a decade will be in a position to offer a standard of living which will compare favourably with that of the more poorly paid workers in capitalist countries, and unless the standard of living of such workers in the capitalist world shall have been materially raised, the World Revolution will begin to make rapid strides.

(2) The workers' clubs constitute one of the real gains of the Revolution for the worker. The club is the most effective competitor which vodka has.

(3) The Soviet Government has taken a more realistic view toward the problem of the status of women in the modern industrial and urban world than has any other country.

(4) On account of the direct control over the economic system which is exercised by central authority, it seems probable that the Soviet Government will succeed in keeping unemployment at the low figure which was attained during 1930.

(5) Within the limits of the classes to which the system of social insurance applies, it represents an important contribution to social welfare. The worker . . . has a greater measure of security against economic hazards than in many capitalist countries.

(6) Together with other elements in the economic and social system, social insurance reduces very greatly the fierceness of the economic struggle for living.

(7) The Party arrogates to itself the right to determine what is good for the proletariat, but sincerely attempts to serve the proletariat in its programme and policy. No effort is spared to make the workers feel that they are an important factor in industry.

(8) Russian Communism has had the courage to try out radical solutions for economic problems such as the agricultural and unemployment problems, and for such a social problem as that of the status of women in modern economic life. Some progress in solving these problems has been made.

(9) If the desirability of achieving a really socialistic, economic and social order is taken for granted, then considerable credit must be given to the Russian Communist Party for having preserved the dynamic character of the Revolution and for having developed a truly socialistic system.

(10) Even if one is not a Socialist, the contribution to the fund of human experience and knowledge for which the Soviet system is responsible cannot be denied.

(11) It used formerly to be denied that a socialistic state could " carry on " at all. Such a denial is no longer possible.

(12) No bitter necessity for people of safeguarding or improving their individual economic status.

(13) The pride of family has been destroyed.

(14) The amassing of wealth is impossible and the craving for wealth neutralised.

(15) The interest in the success of the Five-Year Plan has been partially substituted for success of the individual.

(16) The creation of a system of life which has displaced the money standard of measurement for even the moral and subjective values which exist in bourgeois civilisation must be registered as a distinct contribution to human welfare.

(17) The servility which is induced by the desire to obtain monetary rewards has almost disappeared.

(18) The spiritual advance which is registered cannot be gainsaid.

On the debit side we find :

(1) That the Soviet regime is founded upon force and fear there can be no question.

(2) To a foreign observer it appears that violence has come to be inseparable from Communism. It is not only in the village that class warfare is preached. It is impossible to believe that liquidation of the kulaki " as a class " will bring an end to violence.

(3) In terms of present human well-being it would, no doubt, have been better for the generation of the Russian people who witnessed the Revolution if events had followed the familiar historical pattern, and if the experiment with Socialism had been finally abandoned as abortive at the time of the New Economic Policy. The benefits which will accrue to the Russian people during the next decade can hardly compensate for the years since the Revolution when objective and subjective conditions of life have been comparable with the days of Ivan the Terrible or Tartar raids.

(4) Millions of the population are seriously under-nourished. The Government has not hesitated to safeguard the standard of living of the workers in the largest cities at the expense of all the other classes. The Party is determined that the Revolution shall not perish even if a few peasants starve.

(5) Militant hatred has become perhaps the most prominent characteristic of Russian communism.

(6) The Communists never attempted to conceal the fact that Soviet Government was a dictatorship not only in respect of the overthrown capitalistic classes but in respect of the peasantry as well.

(7) The total number of persons of working age in the Soviet Union in 1929 amounted to 84,451,000; the proletarian element comprises only about 11 per cent. of the total.

(8) It is almost certain that even if collectivisation is successful, the domination of the rural proletariat by the urban proletariat will continue for some time.

(9) When peasants were asked the question whether they

ate more food than before the Revolution, they invariably treated the query with bitter amusement.

(10) The more peasants who could be classed as kulaki, the more property there would be to expropriate for the kolkhoz, or to pillage, if the central authorities could be evaded.

(11) Certainly the kolkhoz is not a co-operative farm in the meaning of co-operation which is understood in the Western world.

(12) The writer believes that the kulak danger was largely an imaginary one.

(13) Peasant insurrections flared up all over the Union. In general these revolts occurred in districts inhabited by national minorities, but the revolts were not confined wholly to those districts. Isolated assassinations of workers who had gone out to manage the collective farms were numerous. The most appalling stories of torture and mutilation of these workers were spread by word of mouth, for the Government rarely permitted news to appear in the Press. Probably the greater part of the labourers in Soviet Russia do not feel that they are deprived of freedom in any way.

(14) One rarely sees a smile or hears a laugh. Partly this is due to the food shortage which makes life so hard in the Soviet Union at the present time.

(15) Life is so bitter and so oppressive that one feels as though passing from darkness to light when one crosses the Soviet frontier.

(16) If it were possible to put the matter to a free vote, the writer is convinced that at the present moment the majority of the population would vote in favour of a return of the old Tsarist regime.

(17) Never in history have the mind and spirit of man been so robbed of freedom and dignity. It is not merely that academic freedom, freedom of speech, freedom of the Press, and freedom of thought are forbidden; men must publicly deny their real thoughts and feelings.

(18) The Party has no more use for industrial democracy than has the capitalist. As a matter of fact, union officials were held morally responsible for the fulfilment of the planned problem of industry, almost to the same extent as the management. Since the Communist Party constitutes the leadership of the dictatorship of the proletariat, it is considered logical that it should dominate the labour unions. Trade-union membership is practically equivalent to citizenship. The Communist Party dominates the trade unions just as it dominates the Soviet Government. Involuntary deductions from wages became so scandalous that, in March 1930, an order was issued forbidding the deduction of more than one-half month's wage per year for subscriptions to loans. The amount of monetary wage became of less importance than the amount of monthly rations.

The final balance between the statements quoted above is not likely to be obtained. Nor has one the impression that the

author himself has been able to adjust the accounts. It seems perfectly clear that the problems involved transcend a purely economic approach. Having no data whatever to make an economic estimate, lacking a free access to the significant realities, the economist is forced to have recourse to a contemplative attitude towards a mass of incoherent symptoms. Besides a few conversations with German settlers eager to escape from the Soviet Union and a few remarks by American technical advisers, employed by the Soviet Government, there is very little in the laborious investigation which reflects the human element in *The Economic Life of Soviet Russia.* Of the "harassed and haggard-appearing" men who impersonate Communism in Russia one does not perceive even the shadow. Indeed, little else was to be hoped for, since the country is an entrenched camp, closed to the non-party man.

The attitude towards the outside world is briefly sketched in such sentences as the following:—"Assuredly the Soviet Government will spare no pains in its determination to injure British trade." "The Soviet Government considers that the British Empire is the centre of the colonial system of the whole capitalistic world." "Once the British Empire is defeated on the colonial front, the entire façade of European capitalistic dominion of the backward countries must collapse. . . . The Soviet Government is therefore determined that the British manufacturer shall be subjected to maximum pressure in Persia, Afghanistan, Chinese Turkestan and Mongolia. . . . Goods are sold far below the cost of production." "For a long time there will be profitable contracts to be had by foreign concerns in Russia. But a permanent and well-ordered trade of the ordinary sort is impossible." "The capitalists who do business with the Soviet Union might well remember that to the Party, which is more than the Government in Russia, they are as truly enemies of society as the Russian bourgeoisie, and that if conditions were favourable they would be treated ruthlessly." "It is possible that the fanaticism of the Party will entangle the Soviet Union in foreign wars for the purpose of furthering the World Revolution. This is bound to happen whenever the Soviet economic system has been placed on a successful and stabilised basis."

We have seen that the author has in view possibilities, some vast, some more narrow and definite. He evidently has the feeling that he has gained an esoteric acquaintance with the Bolshevist world. While heterodox Communists, like Trotsky, feel very uncertain, has the outsider, with a few working hypo-

theses about the Russians as an Asiatic people, sufficient ground under his feet? A happy guess is, after all, the only possibility for such observers, however great their achievements may be in other fields. The economist is not in a more favourable condition than the Russells, Wells, or Shaws. A small instance will suffice to illustrate what is meant. "The trend of events in the Soviet Union is distinctly in the direction of greater equality in wages." The trend of events perhaps, but certainly not the measures directed toward speeding up work. The transport manifesto of December, signed on behalf of the Party by Stalin jointly with the Chairman of the Soviet of the People's Commissars in December 1930, has been in the opposite direction. The same must be said of Stalin's "new methods."

The distinct contribution made by Professor Hoover has been generally recognised, and is not disputed here. The limitations of the book are certainly not conditioned by the author, but by the conditions of secrecy obtaining in the laboratory of the new social order.

A. MEYENDORFF

The Dynamics of Industrial Combination. By H. A. MARQUAND, M.A. (Longmans, Green & Co., Ltd. 1931. Pp. viii + 206. 12*s.* 6*d.* net.)

THE Professor of Industrial Relations at Cardiff has produced a valuable book close-packed with information, a book difficult to summarise without incurring the risk of producing a mere string of generalities, which would give quite a wrong impression of a valuable piece of work. Nevertheless the attempt must be made, with the advertisement that all Professor Marquand's conclusions here given in brief are fully supported by adequate quotation of facts. In his treatment of the subject he has practically confined himself to the United Kingdom and the United States, pleading that "the rationalisation movement in Germany has already received much attention from writers in English" (p. 13). The excuse is scarcely valid, considering that business evolution in the United States cannot be said to have proceeded in silence, and one would have wished that he had taken the opportunity of comparing closely the varying German and American methods.

In two brief chapters Professor Marquand tries to assess the importance of the combination movement in British and American industry. Loose associations have long tried to limit competition in Britain and have led the way to consolidations aiming at inde-

pendence of the market, and to-day depression of trade has shown the need for rationalisation by the building-up of large-scale industrial units, through consolidation or otherwise. Development has gone further in the United States, where now a change in the character of competition has been brought about. "A general desire for stability; a sentiment against the spoiling of markets; the existence of 'goodwill' appertaining to particular firms which persists even when their prices are high: the potential ability of the more efficient constituents in an industry to undercut drastically the less powerful; informal 'gentlemen's agreements' and understandings; all these influences have operated to check the competition of producers on the same plane within a particular industry" (p. 19). There still remains a competition in "facilities" or "service," and a new competition between industries is developing as is manifested in the various "slogans" of "Eat more Fruit," "Drink more Milk," "Eat more Meat," etc. Ruthless elimination of rivals is no longer a policy with the great trusts, and, consequently, "the danger of monopoly has been shown to be less menacing than was feared" (p. 25).

The chief motives leading to the formation of combinations may be classified as "technological and administrative; commercial or strategic; financial; and personal" (p. 29). The first two classes have been abundantly discussed and need not detain us here. Desire to escape from ruinous competition or to exploit a favourable market condition has been the chief motive in the formation of terminable associations. When these failed, as they did periodically, the natural sequel was the combination of firms on the same plane of production—the "horizontal combine"—but such a union "forced by its nature to attain a monopoly position if it is to secure the full economies of large-scale operation . . . quickly incurs the active hostility of public opinion and even of the law" (p. 39). Recent developments in this country may lead our author to a modification of this opinion and, perhaps, to some weakening of his belief in the "vertical" or integrated combine. To hold that "the differentiation of function and then the integration of parts into a co-ordinated whole is the key to industrial as to biological evolution" (p. 41) is too facile a generalisation. Still, the elimination of insecurity, the rationalisation of management, the utilisation of raw materials, the saving of by-products are important advantages of the large integrated concern, but Professor Marquand after an interesting description of some large businesses comes to no uniform conclusion covering all possible cases. This is wise, for there are

human limits to the size of business that may be brought under one control.

When several businesses have to be unified under one control the " public " has in the end to be brought in either to provide additional capital or to supply the funds with which to pay off the personal interests which it is not desired to retain. To bring together the private investors and the vendors of businesses is the function of the company promoter. His technical services are always necessary, but in the American history of combinations he appears generally as an efficient cause of mergers and not as a mere financial agent. The only effective way of valuing the sale value of a business is, as Professor Marquand shows, to take its worth as a going concern. " But the basing of capitalisation upon present earning capacity is one thing; calculating it by reference to estimated *future* earning capacity is another. Yet this is precisely what the creators of the great combinations, especially in the United States, set out to do. The steady expansion of industry and population in the United States induced throughout the country a spirit of optimism concerning the future of its business undertakings of which financial interests were quick to take advantage " (p. 80). It might have been made more clear that in this country the profits of promotion were fairly modest, but in the United States they were huge. There was a great boom in trust promotion, and the shearers and the sheep alike flocked gleefully to the shearing. The new managers were, as Veblen has pointed out, mainly interested in the " vendibility of the corporate capital " so that they might realise their profit, and bad financial policy frequently led to collapse. Some directorates, however, put the business profits back into the business and gradually squeezed the " water " out of their capital; the United States Steel Corporation, for example, put 900 million dollars back into the business and wiped off 500 million dollars of " water." The issue of an undue proportion of fixed interest securities to the public and the reservation of a relatively small issue of ordinary shares solely to the vendors is not unknown in this country, and such a policy is a temptation to unsound finance, to the insufficient provision of reserves, to over-high dividend distribution, and, in bad times, to unwillingness to adopt " a courageous policy of price-cutting." The following passage is worth pondering over :—" There is an inertia in industry disclosed by recent events which writers on the principles of economics seem inadequately to have appreciated. The business policy of deferring liquidation is further encouraged by the action of

banking interests which frequently hold a large share of the fixed-interest bearing securities of the firms in difficulties. Rather than cut their losses and compel a rapid liquidation and reorganisation of industry upon a technologically sound basis, these interests seem to prefer to maintain the *status quo* in the hope that eventually 'things will improve' and a return will be made to the conditions of extreme optimism which prevailed when the now depressed concerns were capitalised. The effect of their reluctance is reinforced by a desire of the controllers of embarrassed companies to hold on as long as may be to their seats on boards of directors, which bring in a certain income, even though no dividends be paid. In consequence, in times of depression, when reorganisations might assist industry to recover, they tend to be postponed" (pp. 97–8). Chapter IX contains some examples of the reorganisations which have had to follow on the foolish amalgamations and recapitalisations which took place during and immediately after the War when business men and their bankers acted as if they thought inflated values would continue for ever. What *The Times* said of Vickers' and Armstrong's—that "they expanded spasmodically without sufficient correlation and internal organisation"—might have been said of many others.

Professor Marquand's conclusion is that "the desire for immediate pecuniary gain on the part of financial interests has been and still is a leading and often a dominant motive in the formation of combinations. These pecuniary motives frequently act to distort the character of a combination and to impair its prospects of success. They may lead to the amalgamation of units of little efficiency or of widely unrelated type, and to the burdening of a new undertaking with charges which seriously hamper its commercial and industrial efficiency. Financial failure may therefore be no indication whatever of technological unsoundness. That amalgamations are frequently recklessly capitalised is no argument against them *as such*. . . . The success or failure of a combine ultimately will depend upon two factors—upon the degree to which it is a rationalised structure, whose parts fit successfully into one another in harmony, and upon the ability and judgment of those who control it. And of these, managerial ability and far-sightedness is probably the more important" (p. 114). "The profits of financial manipulation must be invested in industry. Financial interests which have once assisted in the promotion of some great combination and have reaped thereby large gains naturally require little persuasion to use those gains to undertake still further promotions,

with the prospect of still larger profits" (p. 117). The first pioneers of large-scale industry in the United States were supplanted by the financiers—Morgan, Gould, Harriman, Hill, and the rest—men "ruthless in their methods" but "cautious in the extreme concerning the type of enterprise they would undertake. They were ready to capitalise, but they were not ready to sacrifice money in fostering the new improvements and inventions. . . . The new men are no longer ruthless, they are gentlemanly and work almost in anonymity behind the scenes. But they are still as cautious as their predecessors. The interest of the finance-capitalist, whether for his own advantage or as the guardian of his clients' investments, tends to be in stability rather than in enterprise" (p. 123). This conclusion Professor Marquand enforces by reference to the history of the American automobile industry, but one would have wished for more examples. The holding company is a powerful weapon of control in the hands of the financier, and the fact that there is a large body of shareholders is no obstacle to effective control being wielded even by a minority block. "The fundamental fact remains. . . . Ownership is becoming increasingly divorced from management. The control of business, increasingly large-scale in its character, is definitely in the hands of a specialised minority. That seems to be the logical outcome of the advantage of large-scale enterprise on the one hand, and joint-stock ownership on the other" (p. 132). This permeation and dominance of industry by finance is peculiarly characteristic of the United States, but the association of the banks with industry is close in Germany, and recent events show that it is becoming closer in this country. Financiers, having found that steady profits from business are more advantageous than loot from a predatory expedition have settled down into making business pay. One development has been what is known in Germany as a Konzern, the network of industrial interests dominated by a Stinnes or a Morgan so interlocked as to work as a harmonious whole. So far the contribution of such groups to the solution of the economic problem is non-existent, for their problems of management and succession are still untouched. In ordinary combinations "the financier is more and more, especially as his interests become widely extended, devoting himself to the function of general financial supervision and direction. He is leaving the task of detailed executive management to a class of industrial administrators which is rapidly becoming differentiated—and with whom, more than with financier or politician, may rest the future of industrial enterprise.

That very diffusion of security ownership which, we have already pointed out, increases the possible extent of financial control, also works to magnify managerial importance" (p. 139). The qualities and functions of the manager class next occupy Professor Marquand's attention. Their business is to plan ahead, even years ahead, and their responsibility is great. Their recruitment is discussed, for it is important to secure men of initiative, and to retain them, both difficult in a huge concern where promotion tends to be slow and automatic and where, more than in Government Departments, routine is bound up in "red tape." The tentative solution is in the training and certification of men by professional institutions, but the author would be the first to recognise that much thought on this problem is necessary. To secure the interest of the managing staff, profit-sharing is recommended and an interesting American plan is described on p. 159. Some attention is given by Professor Marquand to some managerial problems, among them the "wastes of management." "In Great Britain one reflects sometimes that the attention of certain persons who continually advocate longer working hours for other people might be better directed to the evils of the long week-end than to those of the seven-hour day" (p. 163). If the business man objects to this as a dictum of a mere economist, he may be reminded that Mr. Baldwin in a speech at Welbeck Abbey on June 1, 1925, got perilously near the expression of similar views. Another quotation may be made: "Not internal cost-accounting alone, but the intelligent use of trade-statistics are inadequately appreciated by business men, particularly in Great Britain" (p. 164). One is tempted to go on quoting, but we must confine ourselves to one more, and that lest it may be thought that the author thinks that finance will achieve the final reconstruction of industry:—"Industrial development is still going forward, and there is work of pioneering still to be done. As we have seen, this is a task of which finance-capital fights shy. It is only when an industry has settled down that it steps in. A final integration of industries through finance would therefore seem to be impossible" (p. 136). We must all thank the author for this excellent book.

HENRY W. MACROSTY

The Economic War. By THE HON. GEORGE PEEL. (London: Macmillan & Co., Ltd. 1930. Pp. vii + 284. 10*s.* 6*d.*)

CAPITALISM has not too many apologists to-day, and Mr. Peel's defence makes interesting reading. It was the capitalists'

misfortune that the major part of the Industrial Revolution coincided with the Napoleonic Wars: while capital was breeding plenty, war was breeding scarcity and capitalism was saddled with the blame. In fact "capital has secured a fourfold growth of prosperity between 1800 and to-day," and has "financed an immense increase in life." Foreign investment has provided us with raw materials and markets, and finally has "furnished a current distribution of the proceeds of industry which is not unfair." Mr. Peel would "like Labour to have much more," but where is it to come from? He reckons that capital is getting to-day a net return of 6 per cent. (the figure given as £100,000 on p. 85 is obviously a misprint for £100 million), and suggests that this is not an unreasonable figure.

The strife between Capital and Labour is, in the writer's opinion, almost a thing of the past. The sympathetic attitude of economists from Jevons onwards, the increasing tendency to redistribute wealth by means of taxation and to redress the balance between rich and poor by means of the social services, and finally the consolidated victories of Trade Unionism have transformed the whole situation. The gospel of the "nationalisation of all the instruments of production, distribution and exchange" has lost its appeal. Mr. Peel states with confidence, perhaps with over-confidence, that after the "altogether disastrous experience of what state-ownership involved during the war, the workers will not be persuaded to submit themselves again to that yoke."

Labour has tamed Capital, and the scene of the economic war has shifted. Labour now fights labour: the workers of Great Britain are at issue with the poorly-paid workers of the Continent and the exploited labourer of the East. In short, Capital and Labour at home are jointly fighting Labour abroad. Here again it seems that Mr. Peel is a little over-sanguine. It may be true that Capital and Labour are for the moment making common cause against a common danger, but Labour abroad will always get the sympathy of Labour at home, and what our leaders will advocate is international solidarity, not the ruthless suppression of the foreign competitor.

What form shall Britain's campaign take in the new economic war? Three factors threaten our export trade and therefore our national industries: over-production, under-consumption and tariffs. The first we cannot prevent: the twentieth century over-produces machinery as the nineteenth over-produced man. Under-consumption could be countered by foreign investment,

which would help poorer nations to become our customers, but the capital available for the purpose has diminished from a pre-war figure of £150 million to £100 million. And a tariff could do nothing but damage to our export trade.

And then we find that Mr. Peel is after all an optimist, for the world is still progressing, and we are still the greatest exporting country of manufactured goods. In 1929 we exported goods to the value of £12 15*s*. 1*d*. per head of the population, while the figure for Germany, our greatest competitor, was no more than £7 10*s*. 6*d*. British goods continue to enjoy a reputation for quality, and our manufacturers are still renowned for solidity and integrity. But manufactures and salesmanship alike need reconditioning, and it is precisely because so much remains to be done that we need not give way to discouragement.

Mr. Peel finds in the organisation of our Money Market a very satisfactory proof of the vitality and initiative of the City of London. "Here is a rationalised industry" which even in the black year 1929 "earned a net invisible revenue" of about £65 million. The industry is not proof against all dangers: "divorce of the pound sterling from parity would have proved sooner or later disastrous to the discount market and the whole financial market of London." This danger fortunately was "exorcised in 1925." Mr. Peel would seem to have forgotten that only thirty-seven pages earlier he blamed the premature restoration of the gold standard for most of the ills of our export trade.

When we have reconstructed our industries we shall certainly gain the victory in the economic war, but victory is not enough. We would not condemn our rivals to unemployment or reduced standards of living. "Britain seeks, far otherwise, the prosperity of all. Her industrial watchword is association, not ascendancy, and she must point the way to the economic co-ordination of the world." A great ideal, but certainly another story which we hope Mr. Peel may at some future time give us in another volume.

H. REYNARD

Economic Disarmament. By J. H. RICHARDSON, M.A. (Cambridge), Ph.D. (London). (London: Allen and Unwin. 1931. Pp. 224. 7*s*. 6*d*.)

AT first glance it seems paradoxical that the third and fourth decades of the twentieth century should be a period of acute economic antagonism between nations, for we are now equipped

with a machinery for minimising conflicts unparalleled in the previous history of the world. But while, on the one hand, continuous efforts are being made to perpetuate peace by means of international co-operation, on the other, the forces of nationalism have been operating as strongly as at any previous period. This situation is, however, not hard to explain, for the treaties which concluded the " war to end war " were such that, while setting up machinery for international co-operation they simultaneously created conditions which would inevitably cause acute international friction in later years. The creation of new States in most cases where there was no economic justification for the drawing of new frontiers, and the attempt to enforce the economic subjection of the conquered nations, were alone influences quite sufficient to ensure decades of conflict and accentuated nationalism. Hence, while the machinery for co-operation is greater than ever before, conflict continues, and while politically at peace nations are economically at war.

Economic war may take many forms. Firstly, there is the effort of countries to become independent of each other, leading to the exclusion of foreign goods by means of legislation, by prohibitions or tariffs, or to the direct encouragement by other means of certain industries whose products could be more cheaply imported from abroad. Secondly, the converse of this, there is the attempt of some countries to force their own products into the markets of others, which may be effected by means of subsidies, special financial or transport facilities, the encouragement of " dumping," or, finally, by tolerating continued discrepancies in costs between export industries and industries producing for the home market only. Thirdly, there are financial weapons, the refusal by strong nations to lend to those who are in need, or the imposition of political control as the basis for loans. Again, there is the attempt by many countries to colonise by means of capital investment. In this connection the problems raised by the phenomenon of Reparations are of considerable significance. Fourthly, there is the monetary factor, which, since the almost universal abandonment of the traditional gold standard during the war, has been a means of aggression in the hands of certain countries, whether utilised or not. Besides these various weapons more or less under the control of governments, there are also private weapons which are of importance. The free play of competition has led to desperate price-cutting, often at the expense of the wage-earners in all the countries concerned, and, in place of increased efficiency, small groups have obtained monopolistic

powers as a means of survival at the expense of the rest of the world. All these causes of conflict exist to-day in one form or another, and at the same time attempts are being made, if not entirely to eliminate the conflicts, to eliminate the more dangerous forms of aggression.

Professor Richardson does not attempt "to advance new solutions for the consideration of experts, but rather to bring together for the convenience of readers with a general interest in the development of international relations some of the chief proposals which are now under discussion, and which will demand attention in the years ahead. The discussion is limited to a few only of the problems which involve conflict and injury from isolated action, whether by the state or by private organisations. The problems are, however, typical and fundamental" (p. 9). Of these problems Professor Richardson deals most fully with the subject of tariffs, to which, after a short introductory chapter, Chapters II, III and IV are devoted, Chapter III being concerned with the present situation of Great Britain. The growth of international co-operation on the part of producers is next considered, attention being drawn to the disadvantages of both cut-throat competition and monopolistic control, but with a more favourable attitude towards the latter than the former as a means of solving the main problems of the present time. Chapter VI is concerned with the international regulation of conditions of labour, mainly with regard to the effects of varying standards of life on costs and competitive power, and in the following chapter the subject of "Monetary Stability" is thoroughly surveyed. Financial methods of aggression and financial disarmament are, unfortunately, not considered, but their omission from such a book as this is amply justified by the great breadth of the subject.

At the present time there is a considerable demand, on the part of those who take an intelligent interest in international affairs but who are in no way specialists, for information concerning the present trend of events and ideas in this sphere. For them this book is an admirable introduction to the four main topics with which it deals. Not only are the facts pleasantly presented, but where conflicts of opinion on practical solutions exist, the main differences have been most ably summarised. On the other hand, for the professional economist the book is not likely to be of great use, except for reference on certain particular matters of fact, since he is likely already to be acquainted with most of the topics considered.

In one or two cases it may be suggested that the writer has perhaps written too much for the general reader and neglected important opportunities for clearing up theoretical difficulties. One particular case may be noted. Differences in labour costs in different countries, according to the pure theory of international trade, only affect the competitive power of the countries concerned in the long run in so far as they are different for different industries, other things being equal, and are not effective if the differences between the costs in various industries are the same in all the countries considered. Thus, all-round differences in labour costs, due to differences in the standard of living, will not in the long run affect the competition between the countries considered. On the other hand, the view is frequently expressed that countries with low labour costs all round have an advantage over countries with generally high labour costs. In writing on this subject Professor Richardson does not make it at all clear which view he accepts, nor even that the controversy exists, and appears to believe that both views may be valid. It is regrettable that some further consideration was not given to this question. The difference of opinion is probably only one of many depending on the fact that in the particular cases considered the assumptions underlying orthodox doctrine are not all valid. Other things, probably, are not all equal; and it would surely be profitable that one who has had contact with both the theoretical and practical aspects of the subject should enlighten us as to what these things are. It is perhaps unfair to criticise the book because such considerations were omitted, for they are certainly mainly of academic significance, though not entirely, and, on the other hand, it seems regrettable that such an opportunity should have been missed.

Such criticisms as the above are bound to be made whenever a specialist writes for the general reader and has to set a limit somewhere to the consideration of difficult theoretical problems. It should therefore be stated, as against this criticism, that it is hard to imagine a book dealing with such a subject which, in the space employed, gave a less thorough and clear exposition of the fundamentals of the questions considered. The general literature on the economic aspects of international relations still consists mainly of official reports, fat volumes of facts, and theoretical treatises; the present volume is a compromise, but a compromise which admirably fulfils its purpose.

P. A. SLOAN

Markets of London. By C. MAUGHAM. (Pitman: Pp. 208: 6*s*.)
The Commodity Markets. (Swiss Bank Corporation: 38 pp.)

MR. MAUGHAM'S book is a valuable work of reference, dealing both historically and technically with each of the commodity markets, as well as with the insurance and freight markets. Far from being a bare summary, it is attractively written, and is a useful addition to a student's library. The pamphlet of the Swiss Corporation is a helpful supplement, especially on technical matters of operation.

Theories of Population from Raleigh to Arthur Young. By JAMES BONAR, M.A., LL.D., F.B.A. (London: George Allen and Unwin, Ltd. 1931. Pp. 253. 10*s*. 6*d*. net.)

THIS book is made up of six lectures delivered at University College, London, in the spring of 1929 under the Newmarch Foundation, together with two additional lectures and a "retrospect." Abundant references to authorities are provided in the notes appended to each chapter. Dr. Bonar pleads the example of Newmarch himself in deciding to "take up a statistical subject on its less severe side," and describes Statistics as "a Two-headed Janus, with one face turned to the Higher Mathematics, the other to the humbler Economics" (p. 14). Here one would venture on a mild quarrel with the author, for surely Economics demands no less severe a discipline than Mathematics and requires an analysis at least as keen. And when Statistics has availed herself of the aid of Mathematics to reveal all the hidden relations between her numerical data, it still remains for Economics to discover all the other data pertinent to the particular subject, to associate them with the numerical data, to explore the sequences in time and the relations of cause and effect, to attempt an explanation of the phenomena under consideration, and to forecast developments of improvement or decay. No doubt Dr. Bonar, speaking in the Galtonian Laboratory, felt it proper to do homage to the *genius loci*, but one is sure that he would not object to this gloss on his words!

"If," says Dr. Bonar, "we ventured to generalise at all about the two centuries to which our study is confined, we might say that the problem of population was to the seventeenth century a problem of *room*, to the eighteenth of *food*; and *we* now take it (provisionally) as a problem of the *standard of living*, involving the other two essentials, but including the larger conditions of civilised life. Such generalising is not quite fair to the

theorists. It suggests that they could only think of one element at a time" (p. 36). To this summary one may add a passage from p. 220, which might well have come earlier: "Like political economy itself, the theory of Population is no mere announcement of formulas. It is the critical judgment passed upon various concurring (or conflicting) elements and tendencies." We begin, then, with a period when "there was no political economy, but there was a plenty of economic ideas and hints; there was no demography, but there were some demographic ideas and hints" (p. 37). Raleigh perceived the natural tendency of population to increase despite checks, and seems to have had some notion that the struggle for existence might produce variation in type. Bacon scattered a few hints on the ideal State and on Plantations. Hobbes expounded the natural state of war and defended autocracy as the safeguard against anarchy. Harrington in turn founded security on property and related wealth to increase of population and to division of function between the country and the city. These were the forerunners. Demography began with John Graunt, that man of an "excellent working head," as Anthony Wood said, who in 1662 published his *Natural and Political Observations mentioned in a following Index and made upon the Bills of Mortality* for London. His critical examination of the records of deaths and their causes anticipated much that is common practice to-day. The study of population problems was continued by William Petty, whose fertile ingenuity amounted to genius. He was a pioneer in economics and statistics, and, though hampered in all his work by the lack of a census of population, he was masterly in drawing, or guessing at, probable conclusions from very incomplete data. Gregory King (1696) had attempted a calculation of the number of the people, but his work was very little known. Halley, the astronomer, in 1693 compiled "the first full-formed Life Table" based on the tables of births and deaths in the city of Breslau. Susslich, the father of German demography and an admirer of Graunt, grasped the principle of large numbers, and in his *The Divine Order in the Changes of the Human Race shown by its Birth, Death, and Propagation* (1741) began the application of those principles; he believed also that population needed direct encouragement up to the point when scarcity of food would stop marriages.

There was a fairly widespread opinion among the learned in the eighteenth century that the world was verging on old age and that it was much more populous in the times of antiquity. David Hume, in an essay on *The Populousness of Ancient Nations*,

brilliantly controverted such views, though naturally making little use of vital statistics. This work is, as Dr. Bonar says, "on the borderland between Economics and History. The economist is advising the historian on the limits of historical credibility" (p. 174). The dispute is chiefly memorable in that it familiarised the thinking public with the idea that for more practicable purposes than solving such erudite problems a census of population was desirable. In 1753 the House of Lords threw out a bill for a census lest it should be made a basis for increased taxation, but in 1755 Alexander Webster, with the assistance of the ministers of parishes, took a voluntary census of Scotland, which, though full of computations and assumptions, deserves honourable mention. Richard Price, writing in 1769 and 1780, revived the bugbear of a declining population, basing his views largely on estimates of the number of houses, but adding other economic reasons. His entrance into vital statistics was due to his concern for badly managed insurance societies; that led him to consider means for alleviating the burden of the National Debt; and that, in turn, raised the problem of the ability of the population to bear the burden. "To the politicians he left the legacy of an inviolable Sinking Fund, to the actuaries he left the Northampton Life Table, which they find a delusion and a snare. He left nothing perfect, but his very mistakes have helped us towards perfection" (p. 207). Last in Dr. Bonar's list comes Arthur Young, whom Malthus reckoned "among those who prepared the ground for his theory of Population" (p. 221). Young was, and prided himself on being, a practical man rather than a theorist. "I have been too long a farmer," he wrote in 1793, "to be governed by anything but events," a view of himself which was probably exaggerated. But, as Dr. Bonar writes: "Among the elements entering into a theory of Population the material forces of production must find a place, whether for agricultural production or manufacturing, and account must be taken of both in general economic theory" (pp. 220–21). It is here that Young's work came in, for his principle was "that population is proportioned to employment," and in his own sphere of agriculture he held that good husbandry and the largest possible production from the land were the prime desiderata, irrespective of what happened to the agricultural population. Agriculture flourished with increase of the general wealth. He took a decided stand against Richard Price, but his "best service to the settlement of the question lay in his constant pleading for a Census" (p. 232).

Here we have selected for brief comment some of the chief figures that move through Dr. Bonar's pages; space does not permit even the enumeration of the many others of whom he recounts the services as they helped to build the courts of Demography. And it is not to be supposed that he has furnished just a dry book of the chronicles of how one man intellectually begat another and so added his share to the growth of ideas. The main theme is embroidered with personal details, with friendly tolerant accounts of the foibles of his subjects, and even their errors are exposed with tenderness. Not only is the book useful as a piece of economic history, it is a wise and gracious book.

HENRY W. MACROSTY

Types of Economic Theory. By OTHMAR SPANN: translated by EDEN and CEDAR PAUL. (London: George Allen and Unwin. 10*s*. 6*d*.)

THE first edition of this book of Dr. Spann's appeared in 1919, and the present volume is a translation from the nineteenth German edition, which is a reprint from the revised sixteenth edition issued in 1926.

"Types of Economic Theory" is not at first sight a reassuring or inviting title. It suggests a possible divorcement of theories from their historical setting, with a label unrelentingly attached, or a review of theories in their setting which will inevitably blur the distinction as to type. Dr. Spann avoids these dangers, and this is in no small measure due to the fact that he approaches his review of theory with a very definite standpoint of his own—a standpoint which is essentially both philosophical and historical in nature. If the impartiality of this method of approach be called in question, Dr. Spann replies, "The notion that one who is perfectly 'impartial' has also a standpoint reminds one of an attempt to breathe in a vacuum. Essentially this notion is a form of relativism. Of course the various systems must be considered without prejudice. Each must be contemplated from its own angle, and must not be looked at through the spectacles of another system. But that towards which the great interconnection of the systems points—therein is inherent the higher system which must supply the standpoint of the historiographer" (p. 21).

The book, as this quotation rather leads one to expect, is not a book for beginners, but primarily for those who have a first-hand knowledge of writers of different schools of thought, and who can oppose criticism by criticism. For this there is no lack of opportunity, and in it lies the great value of the book. The

method of treatment adopted is an exposition and criticism of economic doctrine from mercantilism to the present day, and naturally (which increases its value for English readers) very much from the German standpoint. The treatment is lively, acute and provocative, and exploded theories are re-exploded with an attractive and enviable gusto. But, on the other hand, it must be said that certain predispositions of the author's mind or a lack of sympathy manifest themselves at times in a less pleasing manner. The "positivists," for example, are dismissed as "narrow-minded charlatans who still flourish among us" (p. 234), while the tone of reply to criticism (p. 284) is even more remote from sweetness and light.

Dr. Spann's standpoint is derived from Adam Müller, and is given in this English translation the somewhat forbidding name of "universalism." This "universalism" is based on the Aristotelian dicta that "man is a political animal," and that "good" means good *for* something. From these two premisses it follows that all human action, and therefore all economic action, is social and purposive, and not individualistic and hedonistic. Applying this principle economic theories are of three types: (1) the individualistic type, the classical theory, which includes what is commonly regarded as socialism; (2) the descriptive type, historical and institutional; (3) the universalistic type, which is reflected in the mediæval "just price" and in all theories in which the State or nation as a unit is conceived to have precedence over the individual.

The precise metaphysical degree of this precedence need not here be raised, but Dr. Spann evidently inclines to the more extreme Hegelian view that "the State is a more or less concrete entity, a super-individual organism" (p. 63).

Be that as it may, however, his classification is both valid and suggestive, and raises a question which requires to be answered. The utilitarian or hedonistic philosophy on which the theories of the classical school of political economy are implicitly based has long ago been discarded in the main in ethical and political theory. Since from the point of view of theory it is Dr. Spann's first and third type with which we are really concerned, the important question is therefore: What difference would the more explicit recognition of the Aristotelian standpoint make to economic theory as usually understood and to the formulation of the theory of value in particular? This depends on how far what may be called "classical theory" is in fact related (1) to a hedonistic basis, (2) to any particular ethical basis. On these questions

Dr. Spann has on the whole very little to offer, either destructively or constructively. His criticisms of the Ricardian analysis as "mechanical" and of the theory of utility as developed by Jevons and the Austrian School as too subjective to afford a principle of exchange are well known and long admitted, but they have a time-worn appearance when applied to the development of classical theory in England since Jevons' time. It may be true, as Dr. Spann says, that classical theory in the hands of Professor Cassel "is still talking the language of the eighteenth century" (p. 278), but that is not true of classical theory in the hands of Marshall. Dr. Spann mentions Marshall, but he has evidently no real acquaintance with his work: his serious treatment of English theory stops at Jevons. He seems quite unaware of the transforming effect on English theory, at the hands of Marshall, of the nineteenth-century ideas of evolution and organic growth, or of the relation of these ideas to the development of the mathematical treatment. In Marshall's hands the "natural" and "mechanistic" price of the eighteenth century becomes transformed into the "normal" and "evolutionary" price, and economic life is presented as an organic growth or development. While it may be true that this "normal" is nevertheless hedonistically conceived, it has yet to be shown that "purposively" or eudaemonistically conceived the formulation of theory would be substantially altered.

Secondly, although Dr. Spann recognises the emergence of the distinction between "static" and "dynamic" with the idea of organic growth, he does not realise its full significance from the point of view of economic theory. He says, "Since there is no such thing as a completely immutable, a perfectly static economy, the differentiation is nothing more than a hypothesis which has practical value for methodological purposes" (p. 274). But "completely immutable" is beside the question; *essentially the same* is the point, and, if this conception is purely "methodological," and has no relation to fact, then a science of economic phenomena in a state of Heraclitean flux is a manifest impossibility. Dr. Spann nevertheless deplores the lack of theory in German economics.

Thirdly, in classical theory an economic statement is a hypothetical statement, and not a categorical one. It is this fact which may make the statement valid even if the analysis of the complete end towards which the economic action is directed is based on a mistaken or outworn philosophy. Signor Croce, like Dr. Spann, also regards "good" or "value" as purposive, yet

he concludes that "the data of economics are the practical activities of men in so far as they are considered as such independent of any moral or immoral determination." [1] Economic science is thus necessarily an abstraction, but if regarded hypothetically, and not as yielding a full explanation of an action, it need not on that account be set aside.

The effect of "universalist" criticism on "individualist" economic theory is thus left somewhat obscure; nor in stating its more constructive aspect does Dr. Spann throw much more light on the matter. He says, "According to the universalist view, 'economics,' objectively considered, is an interarticulation of means for ends (being subjectively the estimation of means and the consecration of means to ends). From this outlook, all economic phenomena are by their very nature an interarticulated structure of achievements (seeing that the means achieve something on behalf of the ends)" (p. 280). Then later, "Thenceforward the leading principle in the formation of value and of price is not marginal utility (though achievement in the widest sense is identical with utility in the widest sense), but equilibrium or equivalence. For price does not arise out of the encounter of subjective estimates of value in the market, nor yet out of the encounter of supply and demand (Menger, Cassel), but out of the relations of magnitude in the articulated structure of an economy, price being the expression of these relations in accordance with the principle of equilibrium" (pp. 281–2).

When reduced to theoretical principles, how would an analysis of this outlook really differ from that of Marshall or of Edgeworth? Both Marshall and Edgeworth, perhaps Edgeworth more explicitly, deprecate the confusion of marginal utility as a determinant instead of an equivalent of value.

At the same time, Dr. Spann's book is suggestive and timely, and well worthy of serious study both from the point of view of theory and of practical policy. It is not to be denied that the remnants of utilitarian philosophy which still cling to economic analysis lead to a mischievous misinterpretation of causes and effects. In theory the search for a more objective standard has led to a theory of prices in which a series of tautological statements are put forward as explanations, and are actually being relied upon as guidance in practice. While more generally, a selfish interpretation of economic action condones selfishness, and selfishness is encouraged. Practical policy and social reform become consequently uneconomic, misguided and misconceived.

[1] *Historical Materialism*, p. 173.

The present attitude of mind towards private property may be taken as a case in point.

M. T. RANKIN

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Der Moderne Industrialismus. By DR. HERBERT VON BECKERATH. (Jena: Gustav Fischer. 1930. Pp. 454.)

AN up-to-date account of modern industry in all its bearings may expect a welcome from students of economics; when it is so full, business-like and well-informed as is Professor Beckerath's book, its usefulness must win popularity for it. Professor Beckerath clearly realises the increasing industrialisation of the modern world; but he is concerned not mainly with theoretic speculations as to its basis, but rather with a plain account of enterprise in it. His book is thus not devoted to economic theory, but is full of Descriptive Economics; and it must be said that the author is very well informed as to the organisation of modern industry in the principal countries of the world. He is at some pains to show that national characteristics have a profound influence on the organisation of industry in each country. The German captain of industry loves order and method, is ready to utilise the results of scientific research (hence the predominant position of Germany in those industries, *e.g.* the chemical, metallurgical, optical, where technical development is of supreme importance) is concerned, in a very special way to see his business a success, quite apart from its yield of profits. The Frenchman is cautious: he waits for sales to increase before he extends his works, and would not dream of extending his works in order to expand sales. In the United States a keen interest in technical progress is joined to an optimistic belief in the unlimited possibilities of markets, leading to "activity madness." Professor Beckerath offers some interesting and instructive suggestions to account for each of the types.

One of the chief problems of modern industry, according to Professor Beckerath, is presented by the ways and means adopted in industry to-day to circumvent the normal interplay of supply and demand. Trade associations, cartels, syndicates, trusts, fusions and monopolies—these organisations in industry are now to be found the world over, and more and more they dominate industrial enterprise. To this problem Professor Beckerath devotes a very large portion of his study, in the main following Liefmann. The various forms of these different sorts of trade associations are reviewed, and their advantages and disadvan-

tages considered, more especially in their effect on the workers. Beckerath points out that high wages and a relatively short working week produce one set of results in those industries that have access to cheap money capital, and another set in those that are limited in their activities by scarcity of capital and high rates of interest. He attempts an estimate of the evil effects on consumption exercised by advertising ; he mentions by way of illustration that in many cases the cost of women's dresses is in inverse ratio to the amount of material required to make them. He asserts that only long-period cartels are good for industry ; short-period cartels must, on the whole, be regarded as dangerous. If there is to be rationalisation in industry, it must be carried out on a large scale by making demand uniform in order to facilitate the manufacture of required commodities ; by the co-operation of the central banks ; and by a close study of market tendencies. In regard to the last named, more appears to have been done in Germany than elsewhere.

The concluding section of the book surveys State regulation of industry and its influence in its various aspects—social services, transport facilities, commercial policy, especially protective duties, and State enterprise itself for mining, the supply of electric power, gas, and potash. The author is of opinion that for some time to come the organisation of industry on an individualistic basis is the only one possible for the established industrial countries. Their great problem will be, however, to overcome the competition of the growing industries in less developed countries which have a lower standard of comfort for their workers and possess abundant stores of raw materials. The author mentions Great Britain in particular, in this connection. But he does not venture on any prophecy in regard to this matter. He commits himself to nothing beyond this assertion—that the gradual evolution to Socialism of industry organised on an individualistic basis is unlikely.

M. EPSTEIN.

The World Economic Crisis, 1929–1931. By PAUL EINZIG. (Macmillan. 1931. Pp. 165. 7*s*. 6*d*.)

IN the preface to this book, addressed to "the man in the street," the author tells us he is attempting to explain the causes of the crisis, suggesting methods of aiding recovery, and outlining action by which the recurrence of crises can be avoided.

In view of the public for which Mr. Einzig is writing, it is

unfortunate that he should have chosen to use the word "crisis" instead of the more accurate "depression." Certainly, at the time the book was written—May 1931—we had reason to congratulate ourselves on passing through a severe depression, with all its attendant hardships and uncertainties, without those uncertainties culminating in conditions of crisis. Indeed, it is in the nature of a contradiction to write of *The World Economic Crisis*, 1929–1931, when a crisis must refer to some outstanding event, the German banking failure and those results the emergency measures were designed to avert, and not to a series of events, a progressive decline in production and a continuous fall in price levels.

Explaining the causes of the depression, Mr. Einzig presents a bewildering array of disharmonies which will, no doubt, satisfy the man in the street that there are ample reasons for the depression existing. But it seems likely that the mechanism of depression will still remain a hidden mystery, and the average man is to be pardoned if he still pleads he cannot understand why the slump came when it did. The only cause we are able to place definitely as an influence of 1929 is the raising of bank rates following the Wall Street bull movement and the withdrawal of gold to France. This influence, in its turn, depressed commodity prices, helping to bring about a bear movement and the final relapse into depression. In so far as this is Mr. Einzig's explanation, it differs little from the orthodox monetary explanation of the regression from business activity in a normal world-wide trade cycle. But this point of view Mr. Einzig distrusts, for the reason that there was no European boom, though we did not deny the existence of pre-war booms because millions of women of employable age were not in remunerative occupations. It is in the chapters where the author expounds his monetary explanation that he is clearest, and it is on them that he relies mainly for explaining the existence of the depression. But in this part of his work, too, he assumes more scientific knowledge than the man in the street possesses. The connection between American speculation and bank rate, between bank rate and falling prices, between falling prices and depression is surely not so universally understood as to make further discussion of it with the man in the street unnecessary. The factors in the depression—the falling off of investment, the prevalence of dumping, the "under-consumption" of agricultural countries—which have the most obvious connection with business prosperity, and the importance of which is, therefore, most easily under-

stood, do not seem to be so much causes of the depression as reasons for its accentuation and incidence.

The latter half of the book is concerned with suggesting alleviations of the present position. Thus it is suggested that an adjustment of retail prices to the new level of wholesale prices, which we can look to time to bring about, must take place before recovery can get well under way. Other alleviations may be obtained more quickly by appropriate social action. Thus a reduction of costs may be obtainable by rationalisation, reductions of wages and a liquidation of frozen stocks. The State, too, can play its part in helping recovery. It can, by legislative measures, take steps to increase the confidence of investors, and, by the expenditure of borrowed funds, increase employment. A direct attack on unemployment, however, is only advocated in those cases in which the value of the social asset resulting is commensurate with the additional burden the tax-payers are asked to bear. But action to aid recovery along these lines is only mentioned—its importance is not exhaustively analysed, nor is there any attempt to surmount, or, in most cases, even to recognise, the practical difficulties involved. This section is full of suggestions, but the man in the street will have to provide his own reasons for rejecting or supporting any one of them.

Finally, the author turns to inquire how, in the future, we can avoid the recurrence of acute depressions. In the main, the remedy suggested is the establishment of closer and more continuous co-operation between bankers through the B.I.S., between producers, presumably through associations, cartels, and other channels for increasing the probability of a remunerative coincidence of demand and supply, and between producers and consumers by methods not specified. This co-operation and the introduction of a British Five-Year Plan, Mr. Einzig hopes, will make possible more even progress. In a struggle for survival which is outlined in the last chapter, private enterprise, so buttressed by co-operation and laced with State help, is forecasted to emerge victorious over a possibly aggressive communism.

There are added eleven appendices giving useful short surveys of the effects of depression in various countries.

J. STAFFORD

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Manchester.

Education for Business Management. By JAMES A. BOWIE, M.A., D.Litt. (Oxford University Press, London: Humphrey Milford. 1930. Pp. 200. 8*s.* 6*d.* net.)

Rationalisation. By JAMES A. BOWIE, M.A., D.Litt. (London: Pitman & Sons. Pp. 36. 1*s.* net.)

DR. BOWIE has largely devoted himself to the development of certain sides of the problem of rationalisation which have not so far received very great attention, and notably to the questions of its limitations, dangers and conditions of success. "Rationalisation," he says, "is in grave danger of becoming a 'blessed word': we do not know in anything approaching exact terms what it means; practically no scientific study has so far been devoted to the purpose." This is, perhaps, an over-statement, and he himself refers to the valuable work of Mr. L. Urwick and Mr. J. A. Hobson. But his attempt to explain the practical application of the problem and the necessary conditions of its success have considerable interest, and, apart from those subjects with which he deals in detail, he suggests valuable lines for further research.

His two books taken together are concerned with three main questions. First, there are the general conditions necessary for the success of rationalisation and the dangers inherent in the movement, which constitute the main purpose of his shorter book, but are also admirably dealt with in the opening chapter of *Education*, entitled "Business Development." Incidentally, the larger book is much the better of the two, for the *Rationalisation* is less solidly argued, though often suggestive and interesting. It is specially valuable, for instance, on the question of budgetary control, the relation of distribution to production, and the place of integration in the process of rationalisation. But the book is inferior in its grasp of general economic theory to the *Education*, and the latter seems sometimes to provide correctives to the former. Here Dr. Bowie, in view in particular of German experience, seems far too drastic in his condemnation of the Cartel type of combine. He possibly over-emphasises the newness of the effective grouping of units, overlooking, for instance, Marshall's work on the external economics of localisation. Moreover, valuable as is his list of the fifteen wastes of *Rationalisation*, he seems unaware that some of them have been for many years part of the elementary theory of industrial combinations.

Nevertheless, in both books the treatment of necessary conditions of rationalisation, and notably of the relations of sales, plant and production programmes, is suggestive; and through-

out he shows a good grasp of the changing conditions which have rendered rationalisation necessary, and of the new system that is consequently involved. Thus the change between nineteenth and twentieth century conditions is well summed up; "in the past, business pioneering consisted in the developments of new markets and lands but, with no more new lands to conquer," it must take the form of expansion and improvement of existing markets by rationalisation and research.

This introduces the second of Dr. Bowie's main problems, namely, the place of management in the development of the new system. Here the growth in the size of the business unit, culminating in the huge rationalised unit, both creates a problem and in part provides its solution. For rationalisation involves an improved, and continually improving, standard of management, and increasing co-operation and co-ordination in place of the individuality and secretiveness of the past. For in the huge concerns of to-day the autocracy of the individual chief becomes difficult, if not impossible, and "his task is to develop leadership among his colleagues, to give them opportunity to exercise it, and to correlate their contributions in the best kind of team work." Similarly, it is argued that the central administration should "lay down general lines of development and call on groups of associated managers to fill in the outlines with well co-ordinated policies." The new developments, however, in many ways render easier the necessary changes involved. For the tendency to combination itself assists to produce co-operation, and lessen the excessive individuality and secrecy which have in many ways been a defect of British business management; whilst the divorce of ownership and management has tended to give management a broader outlook. In these connections the chapters in *Education* on "The New Responsibilities of Management" and the "Types of Leaders Needed" are of special interest, whilst *Rationalisation* has some interesting remarks on the future relations of Labour to the movement.

The final problem, which represents the main purpose of *Education*, is concerned with the development of training for industrial administration. Dr. Bowie strongly supports Lord Passfield's view, which he quotes, of the need for "the profession of a manager to develop a steadily increasing technique and a more specialised vocational training of its own." He is strongly critical of the view that management is a matter purely of personality and a thing which cannot be taught. For he regards the vastly increased demands made by rationalisation upon

management as of themselves necessitating more systematic training, and he is strongly, possibly unduly, critical of the existing defects of British management.

His main thesis is that training for industrial administration requires to be organised on similar lines to education for the medical and legal professions, and this from the standpoints both of education and industry. He regards it as both possible and desirable to provide not only technical training for management, but a broad general education, and he submits an interesting course of training and study for the purpose. But likewise, whilst not under-rating the value of workshop experience, and in particular recognising the need to leave outlets in the workshop for the advancement of the poor man of ability to the higher ranks of industry, he emphasises the necessity for systematic training, through Universities or special schools of business administration, as the main basis for providing the new class of managers. This should be given preferably prior to the practical workshop experience, which he regards as vital, but as coming best in the later rather than the earlier stages of training. All will not agree with Dr. Bowie's position, but his book is valuable not merely as a general argument for the course proposed, but as attempting to work out a definite scheme. His detailed proposals are often suggestive, and whilst additions or corrections may occur readily to the mind, his book provides an excellent basis for discussion and should be of real value to all who are interested in the subject, either as educationalists or as business men.

N. B. Dearle

The Tariff History of the United States. By F. W. Taussig, Ph.D., etc. Eighth edition. (New York and London: G. P. Putnam's Sons. 1931. Pp. xii + 536. $2.50.)

This well-known work was first published in 1888 and covered the period from 1789 to 1887. In successive editions it has been revised, enlarged, and brought up to date by the addition of chapters on the Tariff Acts that followed its original publication. This, the eighth and latest edition, contains a chapter of 38 pages on the tariff of 1930. Previous amending tariffs, says Prof. Taussig, " are all explicable on the ground of some special occasion for a general revision: either an admitted need of overhauling, or a party overturn, or some financial or economic stress. . . . Nothing of this sort can be said in explanation of the tariff of 1930. There had been no political overturn. . . .

The crisis of the autumn of 1929 did not occur until the character of the measure was settled." President Hoover had called a special session of Congress in 1929, suggesting higher duties on agricultural products to help the farmers and similar assistance to depressed industries. A year of wrangling and compromise gave the farmers their increased duties, but not the export debenture plan which they really wanted; it also handed out additional favours to the manufacturers. "Regarded as a whole," says Prof. Taussig, "the Act of 1930 must be characterised as futile. The new duties on manufactured goods were mostly of a petty sort. . . . On the important branches of these industries the protective system had already been carried so far that no considerable further displacement of imports could be expected. . . . For the agricultural commodities the same general characterization applies—futility." The Tariff Commission, as constituted under President Coolidge, "was not such as to command respect either for intellectual capacity or for judicial spirit." By the Act of 1930 the powers and duties of the Commission were left much the same, but the existing body was disbanded and the President was empowered to appoint new Commissioners at higher salaries. The outcome of the change was, when Prof. Taussig wrote, "in the lap of the gods."

HENRY W. MACROSTY

An Economic History of Australia. By E. SHANN. (Cambridge University Press. 1930. Pp. xiv. + 456. 18s.)

THE economic history of Australia falls naturally into three periods, with the gold rushes of 1851–60 and Federation as the two dividing lines.

It begins in 1788 with the first convict settlement at Port Jackson. The officials at home expected the settlement to produce at least its own food-stuffs. But the sorry band of convicts could not be made to work efficiently, despite the supervision of the soldiers of the New South Wales Corps. The cattle were lost in the Bush, the crops were negligible, and the colony was dependent upon imported supplies.

It was soon discovered, however, that rum was an efficient incentive to work and a generally acceptable medium of exchange. Convicts were "assigned" to officers and free settlers, who paid them in rum and sold the produce to the Governor—at fixed prices.

Yet it was not until the Rum Puncheon Rebellion of 1808, when the New South Wales Corps deposed Bligh, the last of the

four naval Governors, that the Colonial Office gave up its attempt to manage the colony on paternal lines, with public agriculture, Government trading, fixed prices, and a limited consumption of spirits.

Under Governor Macquarie (1810–1821) it was still customary to pay wages in rum. George Street, between Brickfield Hill and Bridge Street, cost four hundred gallons. Macquarie, however, besides embarking on an ambitious programme of roads and buildings, founded the Bank of New South Wales (1817). The notes of the Bank replaced both rum and the depreciated notes of private persons, and sterling became the money of account.

Real progress came, of course, with the discovery that Australia could take the place once filled by Spain as England's chief source of merino wool. The main credit for this is due to John McArthur, by far the most able man in the colony. From the first he persisted in his object of breeding for wool, and for fine wool, until in the 'twenties it became clear that he was right. Thereafter the story concerns mainly the expansion of wool-growing in the pasture-lands beyond the gaps which explorers had discovered in the Blue Mountains. Men set out into the unknown with flour, tea, sugar, and their flocks, and " squatted " where they found good pasture. Immigrants and capital arrived from England, while the shortage of labour relatively to land was partly met by fencing the stations, as it was met later (1884) in wheat-farming by McKay's stripper-harvester. An interesting episode was the work of Caroline Chisholm, who helped to redress the balance of the sexes in the 'forties by settling women in the back country. In 1836 the ratio of males to females in New South Wales was 2·55 to 1; by 1851 it had fallen to 1·34 to 1. Then came the gold rushes, which raised the population of Victoria from 75,000 in 1850 to 538,000 in 1860 and " precipitated Australia into nationhood."

The second period saw the spread of land settlement, the establishment of the sugar industry in Queensland, the development of inland transport, and the great land boom which led to the collapse of 1893. It saw, too, the growth of Protection in Victoria under the persistent advocacy of David Syme. When Syme bought the *Melbourne Age* in 1860, it was a struggling newspaper. He made it the greatest power in the colony. Through its columns he became the virtual ruler of Victoria, making and breaking Ministers at his will, and getting his wishes translated into law. Meanwhile, it is interesting to note, the mother colony

of New South Wales made rather better progress under a revenue tariff.

Yet the Commonwealth has become increasingly Protectionist. Professor Shann makes this the main theme of his account of the third period. Increased duties on raw materials and machinery have led to increased duties on finished products, but the volume of imports which (until the present slump) has passed the tariff barrier does not suggest that the industries thus fostered have reached a high level of efficiency. Higher costs of living have led to higher wages, fixed by the Courts, and all sections of the community have demanded a share in the "benefits." The Australian housewife not only pays two or three times the world price for her sugar, she also pays at least 3*d*. per lb. more for her butter than the consumers to whom it is exported.

The main export industries of wool and wheat have made considerable technical progress. The yield of wool per sheep, for example, has risen from 6 lb. in 1890 to 9 lb. to-day, while Farrer's discovery of "Federation" Wheat in 1903 gave a great stimulus to wheat-farming. Nevertheless, only the high world prices of their products enabled production to continue on the scale of the post-war years, and with the slump in world prices even an exchange premium of 30 per cent. is not sufficient compensation for the burden of the tariff. The new chapters in Professor Shann's second edition will be full of interest.

The book has its limitations. Avowedly, little is said of public finance and Government expenditure, despite the leading part which Governments have taken in promoting development—with borrowed money. One looks in vain for anything resembling Cairnes' essay on the gold discoveries. Such subjects as Education and Art are left almost alone.

More important is the absence of maps. After all, it is the stark facts of economic geography which have dominated Australian development. The arid interior, the unreliability of the rainfall, the absence of important inland waterways, have been more significant even than Tariff Policy. Moreover, the reader cannot be expected to know the relative position of all the places mentioned. Similarly, a few statistical tables showing, for example, the changes in population prices, production, and foreign trade, would have been useful.

Nevertheless, this is without doubt a History to be welcomed. Professor Shann has given us far more than a mere record of events. His delightfully vivid style makes the book a pleasure to read, while his wide knowledge of original sources renders it

at the same time a substantial contribution to knowledge. Always scholarly, and never dull, he does more than most historians, economic or otherwise; he makes the dead past live.

F. C. BENHAM

Borrowing and Business in Australia. By GORDON WOOD. (Oxford University Press. 1930. Pp. 267. 12*s.* 6*d.*)

MR. WOOD gives both an account and an interpretation of fluctuations in Australian prosperity during the last hundred years. His interpretation "postulates one efficient cause that is external to Australian business, rather than the operation of a number of inter-related factors forming a complex whole *within* the economic structure itself"—namely, the changing rate at which external capital has been introduced. "The true facts of the situation are that we have suffered in the past and are suffering in the present not from the effects of the business cycle, but from the natural accompaniments of the borrowing cycle." He asserts that "there is a distinct limit to the rate at which any community can absorb capital." At certain times, notably during the 'eighties, external capital was "forced upon" Australia "at such a rate that the ordinary channels of finance became choked, and anything in the nature of efficient direction of capital investment became an utter impossibility." He has little difficulty in showing that during such times more gold than usual has been retained instead of exported, that prices have risen faster or fallen more slowly than elsewhere, and that imports have increased relatively to exports. When the inflow of capital has ceased or slackened, interest payments have of course continued, all these movements have been reversed, and the result has been crisis and depression.

This thesis has been admittedly inspired by that admirable work, *Canada's Balance of International Indebtedness*, but Mr. Wood seems to go further than Professor Viner in stressing the paramount importance of external borrowing. Perhaps certain differences of emphasis would have made his picture more accurate. His explanation is apparently convincing when applied to the 1893 collapse, for the Victorian land boom of the previous decade was undoubtedly stimulated and greatly accentuated by the use of British capital in land speculation. But what of 1853? With 100,000 out of 229,000 males in Victoria and New South Wales engaged in gold-mining and winning £20 millions of gold in the single year of 1852, would not prices and wages have risen, would not the crisis have inevitably followed, in the complete absence

of external borrowing? What of the present depression? Admittedly, the refusal of the British investor at the beginning of 1929 to continue lending (on acceptable terms) played an important part. The "spendable" national income was suddenly reduced by some £30 millions a year. Yet the reduction was only of the order of 5 per cent. The slump in wool and wheat prices, and the rigidity of the wage-structure, have surely been of comparable significance. Moreover, the changing rate at which external capital is imported is partly an effect of changing "prosperity" as well as a cause of it, and is also partly dependent on conditions in the lending country. The way in which crises in Australia have followed on the heels of crises in England deserves rather more weight than Mr. Wood seems prepared to give it. In short, the present reviewer feels that booms and depressions in Australia would have occurred at about the same times, although not with quite the same force, in the complete absence of external borrowing, and that, given the fact of external borrowing, it should be treated as one of a number of inter-related factors rather than as the sole "efficient cause." He feels, too, that some acquaintance with the work of Wicksell or Hayek, or with Mr. Keynes' *Treatise on Money* (which was unpublished when this work was written), would have assisted Mr. Wood in expressing his views, but, even so, the question would still remain of *why* "saving" has outrun "investment," of *why* the money rate of interest has exceeded the "natural rate," at some times and not at others. Whether one accepts Mr. Wood's thesis or not does not affect the value of his book as a study in "business history." It is a useful piece of research, containing numerous statistical tables and graphs, while a special word of praise should be bestowed upon his (somewhat daring) estimate of the Australian annual Balance of Indebtedness from 1900 onwards.

F. C. BENHAM

An Early Experiment in Industrial Organisation. A History of the Firm of Boulton and Watt, 1775–1805. By ERICH ROLL. With an introduction by J. G. SMITH. (Longmans, Green and Co. 1930. 15*s*. net.)

THIS monograph falls into two parts. The first deals with a story the broad features of which are familiar to all—the partnership of James Watt and Matthew Boulton between the years 1775 and 1795. Dr. Roll adds new details and puts the picture in a new frame, for, unlike earlier writers, he is occupied with the growth of the business concern rather than with the steam engine

itself or the personality of its inventor. But there are few surprises in this part of the volume. The idea of the separate condenser as it came to Watt in April 1765 (Dr. Roll puts 1763 for this event) could scarcely have resulted in steam power in industry without the collaboration of a capitalist possessed of a factory organisation, with machines and skilled labour. If economic historians should ever emulate the brighter political historians by compiling a volume of "Ifs," an essay might well be included on what might have happened if Watt and Boulton had never met. It is probable that the inventor would have joined the men of genius who died in poverty, for it is difficult to think of any other industrialist of the period who could have carried his ideas to success. And though the steam engine would have come into being some time, it might have come a generation later—with what alterations in the course of history as we know it a lively fancy might readily suggest.

But it is not with any such conjectures that the author is concerned. What is of outstanding importance in his book is the study of the process by which a firm of engineers, who drew their income from royalties on a patent, transformed itself into the first factory in the engineering industry, drawing profits from manufacture. Dr. Roll shows that an initial step was taken between 1782 and 1786, when the rush of orders for the new rotative engine compelled the partners themselves to manufacture more parts of the contrivance than formerly, forced them to standardise these parts, and led them to alter the method of levying premiums. But it was in 1795, when control passed to James Watt, junior, and Matthew Robinson Boulton, that the pace of business evolution quickened. Under their direction the Soho Foundry was erected, with shops arranged so as to follow the sequence of the production processes; a high degree of division of labour was introduced; an elaborate system of payment by results was devised; and a first "welfare" experiment was made by setting up a mutual insurance society for the employees. At the same time business policy changed profoundly. Engines were now sold outright; the old practice of differential charging was abandoned; and a complex system of cost accounting and business statistics was brought into being. Dr. Roll thus shows that much that is considered new in engineering practice existed long ago, and that "experiments in scientific management . . . are not exclusively a product of the era of mass production, but were apparent from the very beginning of machine industry." It was well worth doing, and is admirably done.

Stress is laid on the change in the attitude towards labour that

occurred when the younger Boulton and Watt took the helm. That the relations between employers and men should become depersonalised as the scale of production grew was inevitable; but the decline of paternalism in the firm was accompanied by higher earnings. Dr. Roll appears to think that elsewhere "the advancing industrialisation created previously undreamt-of misery throughout the country." It is not easy to weigh the misery of men who are no longer alive; but taking the objective test of earnings, several independent inquiries suggest that large-scale industry brought to the workers higher standards of life. Soho must always remain pre-eminent, but in this matter of wages it was no exception.

T. S. Ashton

The University of Manchester.

The History of Trade Union Organisation in the North Staffordshire Potteries. By W. H. Warburton, B.Litt., with an Introduction by R. H. Tawney, Hon. D.Litt. (London: George Allen and Unwin. 1931. 10*s.* 6*d.*)

Mr. Warburton's book affords both an interesting picture of the development of Trade Union organisation in the Potteries over a century, and a concrete illustration of the general nature of Trade Union development in this country which is very instructive and suggestive for comparative purposes.

The problem of labour organisation in the pottery industry has evidently all along been of a relatively simple and fairly well-defined nature. The age of the industry, its highly localised character and the peculiar nature of the craft combined to give it an individuality of its own and to protect it from the fiercest onslaughts of the Industrial Revolution. Indeed, as Mr. Warburton explains, the Industrial Revolution, so far as the introduction of machinery is concerned, left the pottery industry almost untouched until after 1870. At the same time, however, the industry was affected by the increasing mechanisation of other industries, and was influenced by the accompanying changes in social and industrial outlook. From the point of view of labour organisation it thus occupied an enviable position since it combined within itself the elements both of security and growth. The impression left by Mr. Warburton's sympathetic and well-balanced presentation is that, compared with the problem of labour organisation in its venerable sister industries, agriculture and mining—the former with its lack of localisation; the latter, of the natural protection of craft—the problem in the pottery industry has been simple,

and has called for no great constructive effort. This does not mean that organisation has been easy or uneventful. As in most industries, trade unionism in the Potteries has had its period of Utopian schemes, and back-wash of suffering and disillusionment; a second phase of a keener realisation of craft differences with a narrower and more practical policy; a third phase representing a consolidation of interests and a wider industrial outlook. But on the whole the divergence of interests in the pottery industry has never been very great. The consolidation of interests which has taken place is not merely of labour interests, but of the industry as a whole. The establishment of a Joint Industrial Council in 1918, the pioneer of its kind, was followed in 1919 by the formation of the powerful National Society of Pottery Workers and of the British Pottery Manufacturers' Association. Dr. Tawney's hope that this book will be widely read, and will encourage others to make similar contributions to the history of Trade Unionism, may be very sincerely re-echoed.

M. T. Rankin

University of Edinburgh.

The Leeds Woollen Industry, 1780–1820. Edited by W. B. Crump, M.A (Leeds: The Thoresby Society. 1931. Pp. xi + 343. 16*s*. net.)

This valuable work may be regarded as consisting of three parts:—an historical introduction by Mr. Crump, the diary of Joseph Rogerson, and papers relating to the business of Benjamin Gott. In the sixteenth century the "clothier" may have put out some spinning, but all the other operations, preparing the wool, weaving, dyeing, and dressing, were done on his premises. As time went on dyeing and dressing fell into separate hands and the merchant controlled the final stages of the textile processes. Except for fulling, which required power, the wool industry was still one of handwork, though the fly-shuttle and the spinning jenny were taken over from the cotton trade. Between 1770 and 1775 Arkwright invented the carding engine, and about the time this narration opens, mills for the three preparatory processes of scribbling, carding, and slubbing and for the final process of fulling were being started in the townships round Leeds, from which centre the clothiers were being driven by high rents. These mills were driven by water or steam (quite small ones by horse-power) and worked on commission for the hand-working clothiers, who then gave out the carded wool to be spun and wove the yarn at home or gave out some weaving also. Dyeing was also done

by the millers, but, though more restricted in the scope of its operations, the domestic system was as fully in force as it had been a couple of centuries earlier, and so it continued substantially till the end of the period treated by Mr. Crump. Gott's "woollen manufactory," started in 1792, was by no means a modern "factory," though all processes were carried on under the same roof. Spinning and weaving were done by hand even there, and the weaving was organised under several independent contractors, Gott's firm being primarily merchants.

Rogerson was a scribbling miller, and his diary for the years 1808–14 (except 1810) puts us into touch with the agricultural connections of all mills. His farm was of almost as much interest to him as his mill, and the weather was of equal importance for both. "Dull morning, wind east. There has been no drying Cloth these four or five Days back so that we are short of work in the Cloth Mill" (*i.e.* the fulling mill). "There was a backward Spring but very forward haytime and great plenty of grass." These are typical entries, and one notes also several recipes for the disposal of rats and one for the colouring of gunbarrels. The bewitching of William Perigo, fishing in the dam when work was slack, brief family notes, the new organ, the Bible Society; complaints of bad trade, of the difficulty of getting in money, of the slubbers who were his key-men, of the cloth merchants ("an arbitry set of men"), of the clothiers ("the very devil to please")—such are the topics woven through his day-to-day story, giving a lively picture of the life of a commission scribbler a century and a quarter ago. Public affairs get brief notice, except his service in the militia, but we may note under date 6th June, 1814, the following: "This peace makes all very slack—I think now as it is com'd nobody seems so very fond of it; there will be a deal of money lost in various ways." History has repeated itself! Information as to prices and wages are scattered throughout the pages. Early in 1808 slubbers were earning 14*s*. and 15*s*. a week, but his men averaged 22*s*. 6*d*. ("and still they are far from being satisfied"). Trade was very irregular, and in May 1808, "I could find plenty of able men for 10*s*. P^r Week, such as once had 25*s*. and 30*s*. P^r Week"; he was then discharging men, so that elasticity of wages was not an unfailing panacea for bad trade. It is worth noting, too, that in 1809 he reckoned that with "a fair trade to Mill" of £27 14*s*. per week there should be "gains" of £12 9*s*. 6*d*., or say 45 per cent., and that in 1812 his actual "clear profit" was over 41 per cent., and in 1813 about 44 per cent.

The Gott papers contain less of " human " interest than does the Rogerson diary. " They are but the scattered survivors of what must have been a vast mass of correspondence. Moreover, they possess a most miscellaneous character. There are letters of great length reciting the multifarious details of foreign markets. At the other end of the scale we have a quantity of bills of exchange, receipts, valuations, and so forth. Notwithstanding individual features of much interest, there are gaps spreading over many years which make it impossible to construct from these papers alone anything like a comprehensive history of the firm " (p. 169). Mr. Offor, University Librarian, in a most interesting introduction to this part of the book, ekes out the story from other sources. Altogether 144 documents are printed in whole or in part, many dealing with the equipment of the factory in 1792 and, in particular, including correspondence with Boulton and Watt regarding the installation of one of the new steam engines. Some Luddite documents are of interest, but Leeds was pretty free from their disturbances, as the cloth dressers had been strong enough to prevent the introduction of gig-mills and shearing-frames. Abundant particulars of commodity prices are given in the letters, but among all the dry business details it gives one great pleasure to read a letter (pp. 224–5) from Mr. George Augustus Lee to Mr. Gott in 1802, announcing at the end his approaching marriage in terms which justify one in claiming him as a " man of sentiment." Mr. Lee was an enterprising man, for he introduced gas into his house in 1804 and into his mills in 1805. Two following chapters deal with the history of Gott's mill buildings and with notebooks containing records of his mill practice. The last chapter contains a collection of trade notices, newspaper advertisements, and extracts illustrative of the progress of the woollen industry during the period under review.

It will be plain that students of economic history owe a deep debt of gratitude to the Thoresby Society for publishing this book and to Mr. Crump and his coadjutors, Mr. Offor, Mr. Heaton, Mr. Yewdall, and Miss Hargrave for the critical reviews of the documents.

HENRY W. MACROSTY

The Anglo-French Treaty of Commerce of 1860, and the Progress of the Industrial Revolution in France. By A. L. DUNHAM. (University of Michigan Press. 1930. Pp. 409. $3.)

THE hero of this book—if, indeed, the word " hero " may be used in referring to so austere a piece of scholarship—is Michel

Chevalier. Originally a disciple of Saint-Simon, Chevalier came at an early age under the influence of J. B. Say; and, being thus an authoritarian in politics and a liberal in economics, he was ideally fitted for the rôle of commercial adviser to the Second Empire. In 1852 he resigned the Chair of Political Economy, which he had held for twelve years, to become a member of the Conseil d'Etat; and henceforth his whole energies were given to the reform of the fiscal system of France.

Previous writers have attributed to Cobden the principal part in the creation of the Treaty of 1860. There is some excuse for them in that Cobden was a plenipotentiary and signed the Treaty, whereas Chevalier did not. But, as the result of a minute study of correspondence that has been preserved both in England and France, Dr. Dunham is able to show convincingly that it was in the mind of the Frenchman, and not in that of the Englishman, that the idea first germinated. He proves, moreover, that Chevalier had the task not only of composing the hesitancies of Napoleon III, but also of overcoming the scruples of Cobden, who at first was inclined to regard the project as a departure from the sacred principles laid down in 1846.

About a third of the book is given to the day-to-day negotiations that preceded the Treaty, and to the Tariff Convention and the Imperial Loan to manufacturers that followed it. But of equal interest is the detailed study made by the author of the development of the leading industries of France. The history of each is carefully traced from the beginning of the nineteenth century to the abandonment of the Treaty in 1882, and in these chapters, as in the earlier, rich supplies of new material are tapped. Dr. Dunham has written more than a monograph : his book makes an important and permanent contribution to the general economic history of France.

As to the effect of the Treaty, it is not difficult for the author to prove that freer intercourse was beneficial to the manufacturers of silk and wine, who, alone of French industrialists, had supported the efforts of Chevalier. But for other industries it is less easy to disentangle the results of the Treaty from those of other events. It is shown, however, that the depressions that visited the iron and textile trades in the 'sixties were produced by the American Civil War and by economic or technical factors remote from politics : the author leaves no reason to think that they were in any wise the result of increased imports from Britain.

At a time when the sands seemed to be running low for Free Trade in this country, it is refreshing to read of the motives that

led the French to freer trade in 1860. Faced with the problem of industries that needed new methods and new machines but showed little inclination to adopt them, Napoleon III administered the tonic of increased foreign competition. It is the thesis of this careful study that the tonic was effective.

T. S. ASHTON

The University of Manchester.

History of the Financial Administration of Ireland to 1817. By T. J. KIERNAN. (P. S. King & Son: 15s.)

DR. KIERNAN is to be congratulated on a very successful and fruitful research, the results of which throw much new light on Irish constitutional history. His main thesis is that the Irish Parliament, in spite of its numerous limitations and incapacities, fought a prolonged and successful struggle against the executive for the control of finance. In the course of his study the author discusses many unfamiliar aspects of Irish history, and he has brought to light many interesting facts regarding the government and administration of the country. The book displays evidence of prolonged and original research and is a valuable addition to the literature of Irish history.

The contest between the executive and the legislature in Ireland centred on the interpretation of Poynings' Act. Dr. Kiernan distinguishes between three uses which were made in different periods of this famous statute. Under the Tudors and early Stuarts the Act was used as a protection to the legislature against the executive in Ireland, and Elizabethan parliaments sturdily resisted proposals for its repeal. It was Wentworth who realised that the Act could be used as a means of suppressing the initiative and independence of the Parliament; "it was not any longer a machinery for co-operation, but an instrument of subordination." Finally, in the eighteenth century the Act was used by the British Government to safeguard its unconstitutional supremacy in Irish affairs. The amendment, which amounted practically to the repeal, of Poynings' Act was one of the greatest achievements of the liberation of 1781.

The attainment of parliamentary control over Irish finance was delayed and impeded by the grant by the Restoration Parliament of perpetual duties, the "Hereditary Revenue," to the Crown. It was only when this ample source of revenue proved insufficient that resort had to be made to Parliament for "additional duties." The post-Revolution Parliament surrendered without protest to the claim of the English Parliament to

bind Ireland, but it exhibited considerable independence in matters of finance in insisting on the presentation of accounts by the executive. Throughout the early part of the eighteenth century the examination and criticism of the public accounts was the method by which the Irish Parliament attempted to check extravagance and maladministration. Appropriation of supply, as a regular practice, did not begin until 1753, when the Parliament was worsted in its contest with the executive over the right to dispose of a revenue surplus. Henceforward the House of Commons appropriated to specific purposes part of the supplies granted by them. The new expenditure originated in this way frequently took the form of bounties and premiums on different branches of industry and agriculture and the construction of public works, many of which were of great advantage to the country. In the later years of the century the increase of the additional duties and the frequent sessions of Parliament strengthened the position of the House of Commons, which succeeded in coercing the Government in 1779 by refusing to grant supplies for more than six months.

Grattan's Parliament suffered, in its early years, from serious limitations in the control of public finance. The independence of the House of Commons was undermined by corruption, and it was not until 1793 that the Government could be persuaded to consent to a measure of financial reform. The House of Commons voted supplies, but had no voice in limiting expenditure. There was no general appropriation Act, and the committee of accounts had become pliant to Government influence. In 1793 comprehensive reforms were effected; provision was made for a full appropriation of supply, and a system was introduced to ensure the official responsibility of the officers concerned with the collection and expenditure of the revenue. Unfortunately the reformed system never had a chance of working in normal conditions. The closing years of the eighteenth century were years of war abroad and rebellion at home, and the shadow of the Union was beginning to hang over the Irish Parliament. It is impossible to disagree with the contention that that Parliament had shown an enlightened regard for an upright system of financial administration, and had succeeded, in spite of innumerable difficulties and discouragements, in establishing such a system when it was approaching its own annihilation.

The Act of Union was the most important turning-point in Irish financial history. Owing mainly to the unforeseen con-

tinuance of the French war, the financial arrangements of the Act proved quite unworkable, and the exchequers of Great Britain and Ireland were amalgamated and their debts united in 1817. Dr. Kiernan attacks with much vigour the proportion laid down for the Irish contribution to the expenditure of the United Kingdom, and severely criticises the action of Parliament at the time of the amalgamation of the exchequers, when it acted certainly against the spirit and probably against the letter of the Act of Union.

GEORGE O'BRIEN

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The Greenbacks and the Resumption of Specie Payments. By DON C. BARRETT. (Harvard Economic Studies. Milford. 1931. Pp. 248. 12*s.* 6*d.*)

THIS work attempts three ends. First, it attempts to provide an account of the introduction of the Greenbacks into the U.S. currency system, and of the eventual ability of the Treasury to exchange gold freely for them. Secondly, the author tries to estimate the probability of a successful resumption of specie payments had such a course been attempted at an earlier date, 1866 instead of 1879. Thirdly, it illustrates the economic and political dangers of inconvertible paper.

These three objects necessitate a twofold study. The first is presented, carefully and with detail, by the unfolding of a drama, almost a tragedy, of economic history, and at the same time there is skilfully suggested the political history of the time that is relevant to the attainment of the third object. Two episodes in this survey are of especial interest, in that they throw light upon the early monetary systems of the States. It is this decentralised system, and Chase, the Secretary of the Treasury in the early years of Lincoln's Presidency, that have the attributes of villainy in this drama. The early years of the Civil War saw the necessity for a considerable loan, which the banks issued, paying to the Treasury the purchase price in currency at the instigation of Chase, who refused to take advantage of new legislation which made this procedure unnecessary. This depletion of the banks' currency reserves forced a contraction of bank-note issues, and a lapsing of specie payment—leading eventually to the Greenback issues. And again, in the final act of resumption when we are awaiting the curtain, a tragedy all but takes place. Specie payments have been resumed, but at the time when the exchanges

tend to turn against the dollar and when the gold reserves of the banks have been depleted by the Treasury's action in obtaining gold cover for the Greenbacks. Normally, this should be a situation which we can leave the actors to face themselves. But circumstances are not normal. It is impossible for the Treasury to redeem Greenbacks in the ordinary sense, for after presentation at the Treasury for gold they must be reissued. This enactment, directly due to contractionist fears, leaves the banking system without curb. Only bad European harvests allow us at last to leave our seats and to refresh our memories of the mischief yet to be done before the establishment of the Federal Reserve system.

This narrative of a monetary experience, and of political ineptitude, ignorance and lack of scruple, bringing together scattered or inaccessible information, should prove as valuable as *it is interesting.*

But it cannot be said that Professor Barrett is as happy in his analysis of the possibility of the resumption of specie payments in 1866. With a premium on gold of 40 per cent. surely it is not enough to suggest that all classes were comfortably circumstanced and that a foreign market for U.S. bonds existed in order to prove the possibility a certainty? Nor are the explanations of fluctuations in the price level altogether satisfactory, for the author relies solely upon a correlation, presented to the eye, between prices and the quantity of Greenbacks. The process by which inflation took place is surely as important as the factor that made the inflation possible. For example, after the termination of the war, the fall in prices, the temporary redemption of Greenbacks and the increase in the banks' specie reserves, all seem linked up with the halt in the Government expenditure. While, in a currency system so incoherent, might it not be argued in favour of inconvertible paper that an increase in war expenditure on such a scale might itself have caused a crisis had there been no expansion in legal tender?

Still, as we now know so well, Professor Barrett's condemnation in retrospect of inconvertible paper on account of the dangers of over-issue is well warranted if a little uninquiring.

J. STAFFORD

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NOTES AND MEMORANDA

Official Papers

Report on the Profitableness of Farming in Scotland. (H.M. Stationery Office. Pp. 162. 2*s.* 6*d.*)

Conflicting opinions are held as to the causes of agricultural distress, and both agriculturists and the general public may be in need of definite guidance and of precise facts. It has been the object of the Department of Agriculture for Scotland to meet this need, and in the Report recently issued upon the Profitableness of Farming in Scotland, the results of a study of the financial and other records collected from farms over a wide area during 1928–29 are presented and discussed with a forward look also to more recent times. Farming is a life as well as a business, and considerable differences manifest themselves in the working of the farms by family or by hired labour, and in the amounts and sources of capital utilised. Farmers variously situated make unequal demands upon the banks, auctioneers and merchants for credit facilities, and these differences are discussed. In the matter of profit and loss the report reveals that depression has been very unequal as between one district and another, and, indeed, that certain types of farming had, at any rate until 1929, escaped a condition that might be described as depressed. There is, too, much greater uniformity in the income yielded to farmers in some districts than in others. The widely held views which associate profit or loss with the volume of labour employed, the use of home-grown foods, or the use of machinery, are analysed in the light of the returns received. Another subject of discussion is the extent to which the varying fortunes of farmers can be accounted for by the unequal effects of recent changes in the levels of costs and of prices upon the various systems of farming. The remedies available to the farmer are seen to be by no means the same from district to district. There is appended to this discussion of the present position of the industry a section which will have a particular interest in the Border areas, and to investigators generally. Perhaps the greatest difficulty in depicting accurately the state of the industry arises from the absence of precise information as to the number of farmers and workers

concerned in each of the varied forms which farming takes. The Department is endeavouring to overcome this difficulty by making a statistical classification of farming systems in Scotland, with a view to giving the appropriate weight to each in describing the economic status of the industry. This work has been completed for the Eastern Borders of Scotland, and an account is offered both of methods and of the results. (*Communicated.*)

OBITUARY

HERBERT JOSEPH DAVENPORT, 1861–1931

HERBERT JOSEPH DAVENPORT was born in Wilmington, Vt., August 10, 1861. He was head of the Department of Political Economy and Dean of the School of Commerce of the University of Missouri, 1908 to 1916. He was Professor of Economics at Cornell University, 1916 to 1929, and thereafter Emeritus Professor. He died suddenly in New York City, June 15, 1931.

To students of the history of thought, it probably appears that few economic theorists have attained as high a degree of self-consistency as might have been expected in a field where a single set of concepts and preconceptions has been so often worked over and over. Davenport is certainly to be numbered among these few, if indeed he does not surpass all other "system economists" in the rigour and coherence of his thought. It is, therefore, something of an anomaly that he should offer a theory which, however coherent, is at once a masterpiece of Austrian neoclassicism and a system uniquely to the liking of those who think they have moved farthest ahead of neoclassicism. An individualist among individualists, for the most part a Victorian in his philosophical outlook and literary taste, and trained in close economic reasoning of the old pre-Austro-German-influence type under J. Laurence Laughlin, Davenport was yet able to forge a theoretical connecting link between the now older Austro-American economics and that newer American theory much of which is still in the writing. Paralleling and partially explaining this close kinship of Davenportian doctrine to certain newer elements in American economic thought was an intimate friendship between Davenport and Thorstein Veblen.

The novelty of Davenport's version of neoclassicism has commanded less attention than it merits. It easily escapes even a careful reader of the *Economics of Enterprise*, but few of those have failed to grasp it who have carefully dissected writer after

writer under Davenport's tutelage in his seminar in *Value and Distribution*. That the effectiveness of Davenport's writing and his teaching contrast more strongly than is common is due in part to the difficulties of his written style—compactness of expression, controversial tone, the relegation of whole essays to footnotes—and in part to his mastery of a quasi-Socratic pedagogy. But this is not all. His thinking starts out with classical concepts, classical terminology. Using these terms he tries classical formulations, classical laws, and finds them wanting. He then re-defines the old terms so that the classical formulations shall seem to him tenable. He puts new wine up under old labels. Little wonder that his new connotations of old words should escape the reader. " Utility " is not usefulness but desiredness. " Cost " is not expense; it excludes unavoidable expense and includes revenue foregone—it is " opportunity cost." Product is, in his most frequent usage, neither physical output nor its value; it is " proceeds " to the entrepreneur, net profit.

What, then, is the new wine put up under old labels? Almost certainly the chief novelty of his doctrine is that he alone among the theorists of his generation throughout his system consistently distinguishes " competitive economics " and " collective economics." For " competitive economics " he finds that capital goods include equities in other enterprises (loan funds), franchises, monopoly advantages and investments in publicity as well as tangible assets. And rechristening the " Laws of Diminishing and Increasing Returns," the " Law of Advantage and Size " and the " Law of Proportion of Factors," he finds the competitive-collective distinction makes several laws of each. Moreover, in applying those forms of these laws which are relevant to " entrepreneurial calculations " to the competitive productivity theory of value and (primary) distribution, he does what other neoclassicists have failed to do—he finds a place *in his system* for outlays on sales effort and on litigation, as well as for outlays on lobbying, on gunmen, on bribery, etc. He also finds a place in his " productivity " theory for such activities as high finance and the production of what Hobson calls " illth." Thus Davenport's thorough-going competitive-collective distinction leads him to a view close to that of Veblen *On Pecuniary and Industrial Employments*,[1] and at the same time makes him critical of his fellow-neoclassicists for the confusion of collective and competitive

[1] The resemblance of Davenport's unpublished treatment of the *Economics of Feminism* and the *Economics of Fashion* to Veblen's *Theory of the Leisure Class* is less clearly of the essence of Davenport's thought.

economics and for the closely related confusion of ethical appraisal and economic description. But since he regards the task of economics as purely descriptive,[1] he is not led to develop constructively the close relation between collective economics and ethical appraisal, except in his unwritten theory of taxation.

One other distinctive phase of the *Economics of Enterprise* may be singled out for special comment—Davenport's treatment of capital and interest. Like Irving Fisher, and unlike most other neoclassicists, Davenport deals with the interest problem as one involving the *ratio* between the annual hire of a capital good and its present capitalised worth—not merely, or chiefly, as one of determining the amount of the annual hire of a capital good. Thus capitalisation is a central part of the theory. But in important respects Davenport diverges from Fisher. Pure interest cannot be separated from insurance loading, handling charges, etc.—that type of cost analysis would make all commercial bank-interest "impure." Also a lender's risk depends on his market information—and the market is imperfect. We must speak not of "*the* interest *rate*" but of interest *rates*. Again, in Davenport's thought there is a larger place for other factors in interest rates than time preference, risk, productivity, purchasing power of money, and cost of production—such factors as Government borrowing, taxes, commercial bank capital, and the effect of the unequal distribution of income upon capital accumulation. Finally, with Veblen, he develops the concept of loan-fund capital. This *competitive* concept is central to Davenport's interest theory. "Productivity gets . . . no further than an explanation of mere *rents*. . . . *Rents* do not afford *rates*." "Rents are . . . one of the bases of interest-paying demand for [loan] fund capital." "The interest rate market is a [loan] funds market, not a machine or raw materials or present consumables market."[2]

If Davenport's competitive economics, and especially that phase of it concerned with interest rates, distinguish him from his fellow-neoclassicists, his conception of economic science is none the less the essence of neoclassicism—a "theory" of value and distribution in the sense of a deductive, somewhat mathematical explanation of the logical *reasons* for a price in terms of ultimate determinants at the moment. Despite his lack of mathematical training (witness his inability to grasp the concept of velocity of

[1] It is interesting to note the ethical tone of his address as President of the American Economic Association.

[2] *American Economic Review*, Dec. 1927, Vol. 17, pp. 645, 652, 654.

money [1] and of the " present " as an infinitesimal,[2] he was able by virtue of his rigorous logic to perform a difficult mathematical feat—to avoid " circularity " in handling the neoclassical price problem by a procedure equivalent to simultaneous equations, even when the price problem is complicated by capitalisation and by production of new capital goods.[3] An essential part of this achievement is his doctrine of reservation price applied to capital goods.

Davenport's great rigour of reasoning was at once a virtue and a vice. It led him on a fearless search for truth, with an unwillingness to compromise conviction that once cost him a temporary refusal of his doctorate. It made him intolerant both of all that smacked of intellectual chicanery among his colleagues and of the Marshallian type of mind with its ability to see many sides to a question and its disinclination to knit long chains of deductive reasoning into a single consistent theory. And although he absorbed enough of Pragmatism at Chicago to regard truth as relative to the individual (a natural extension of his individualism), he was unable to carry his rigorous reasoning outside of his own world of concepts and preconceptions, unable to grant the assumptions and definitions of others, even " for the sake of the argument." This inability blinded him to the contributions of others. He had no use for Cairnes's non-competing groups, for he assumed each group in a separate perfect market.[4] He could comprehend a non-individualistic, organic conception of society only as a social organism or as a group mind.[5] And while maintaining a youthful vigour of intellectual interest to the last—an interest in modern trends in physics, biology and psychology—his understanding of psychological theory was closely limited to his own naïve introspectionism (in which he illogically resorted to the " Marshallian " James's device of a " metaphysical ego "). Yet no one was more tolerant than Davenport of a logically held opposition, even an opposition that he could not fully understand.

Originally a lawyer, Davenport came late into the field of economics.[6] His legal training appears to have emphasised his

[1] *American Economic Review*, March 1930, Vol. 20, pp. 9–19. He speaks of velocity as MV, not V.

[2] Cf. *Economics of Enterprise*, p. 174.

[3] *Economics of Enterprise*, p. 111.

[4] *Quarterly Journal of Economics*, Nov. 1925, Vol. 40, pp. 52–81.

[5] *Economics of Enterprise*, pp. 387 ff., n.

[6] Davenport was graduated from Harvard Law School in 1886. He received his Ph.D. in economics at the University of Chicago in 1898. For the following three years he was Principal of the High School in Lincoln, Neb.

individualistic philosophy rather than produced a fruitful blending of law and economics. It also gave a peculiar twist to his version of the Socratic method of teaching, and afforded him a rich field in which to exercise his talent for apt and vivid illustrations of his points.

Davenport's true greatness as a teacher was enhanced by a personal charm that engendered warm affection, and by his appealing eccentricities. In emotions he had the childish simplicity of the Homeric gods—in frankness, in anger, in admiration for others. Believing with Veblen that " invention is the mother of necessity," he was slow to adopt the use of telephone and auto. In his classes Davenport enjoyed the presence of men trained elsewhere, because he liked to make converts. As a teacher, he aimed to make students into disciples; and he succeeded as a teacher by failing of that aim. He leaves behind him few good Davenportians, but many who are the better for their training in rigorous thinking, many whom he has inspired with a love for the fearless pursuit of truth for its own sake.

MORRIS A. COPELAND

University of Michigan.

CURRENT TOPICS

THE following have been admitted to membership of the Royal Economic Society :—

Anderson, C. A.
Anderson, J.
Ann, Ong S.
Atkinson, L.
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Barnes, H. C.
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Broster, E. J.
Chance, C. F.
Charles, A. G.
Chun, Y. S. Peh-Chwang.
Contractor, E. A.
Davy, R. L.
Demarest, Mrs. F. J.
Feavearyear, A. E.
Graham, H.
Gupta, D. N.
Hee, S. Hong.
Herbert, R. R.
Jones, T.
Jones, T. E.
Jordan, V.
Logan, Capt. A.
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Phipps, J. R.
Preston, S.
Proctor, R. B.
Rowse, A. L.
Smith, N. S.
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Varma, R. P.
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The following have compounded for life membership of the Society :—

Debenham, P. K.
Gattamelata, F.
Hotelling, Prof. H.
Northcote, Capt. O. S. I.
Robertson, H. M.
Sharp, G. M.
Tien, Shu-Hsiang.
Wilson, J. R.

The following have been admitted to Library membership of the Society :—

Public Library of Charles University of Prague.
Institut für Sozialforschung, Frankfurt University.
China University, Peiping.
Bibliotheek Centraal Kantoor Voor de Statistiek, Batavia.

Professor Loria writes :—

"Carlo Cassola, Professor of the Science of Finance at the University of Naples, who died on the 28th May of this year, at the age of fifty-three, showed considerable talent in a series of writings very remarkable for learning and impartiality. His earliest book, on *Industrial Combinations* (1905), contains an able criticism of the big industries. His interesting work on *Advertising from the Economic Standpoint* (1909) can bear comparison with the larger work of Mortaja on that subject. Excellent observations are to be found in his book *On the Formation of Prices in Commerce*, which followed a little later. But his most stimulating work is his *Property and the Distribution of Wealth* (1916), a triumphant refutation of the theory which derives the superiority of wealth from the superiority of natural abilities. In 1925 he published an excellent little book on *Risk in Relation to the Organisation of Modern Industry;* and in 1930 he contributed to the volume celebrating the jubilee of Professor Camillo Supino a learned paper on 'Recent Financial Reforms in France.' Unhappily, the serious illness which had long threatened his life had prevented him from giving to the world that fundamental work which his friends and admirers expected from his high qualities of mind and indefatigable industry; and his scientific career remains as a fine promise of which the harshness of nature has prevented the complete fulfilment."

The Centenary Meeting of the British Association will be held in London from September 23 to 30. All particulars can be

obtained from the Secretary, Burlington House, London, W. 1. The preliminary time-table for Section F is as follows :—

September 24.—Mr. R. R. Enfield, "The World Wheat Situation." Discussion on the Aims, Methods and Progress of Research into Management Problems (Chairman: Mr. B. S. Rowntree). Prof. J. H. Jones, "Wages Prices, and Employment." Discussion on Means of Co-operation between Industry and Educational Institutions in Promoting the Training of Managers (Chairman : Viscount Leverhulme).

September 25.—Prof. E. Cannan (Presidential Address), "The Changed Outlook in Regard to Population, 1831–1931."

September 26.—Discussion on Population (Prof. J. S. Huxley, Prof. A. M. Carr Saunders, Dr. R. A. Fisher, Prof. L. T. Hogben, Mr. J. B. S. Haldane).

Excursion to Welwyn Garden City.

September 28.—Mr. J. Morris, "Rationalisation and the Cotton Industry." Discussion on the Rationalisation of Distribution (Chairman: Sir R. Waley Cohen). Mr. R. L. Hall, "Difficulties of Wage Regulation in Australia." Mr. R. G. D. Allen, "On the Foundations of a Mathematical Theory of Exchange." Discussion on Bridging the Gap between the Birth of an Idea and its Industrial Application (Chairman: Sir John Anderson). Discussion on the Utility of Trade Barometers (Chairman : Prof. A. L. Bowley).

September 29.—Mr. M. Dobb, "Current Economic Theory and the Five-Year Plan in Russia." Mr. J. W. F. Rowe, "Artificial Control of Raw Material Supplies."

September 30.—Mr. Raymond Unwin, "Town and County Planning."

The Second General Assembly of the International Union for the Scientific Investigation of Population Problems was held in London June 15–18th. Representatives from ten different national committees were present. Numerous contributions were read which will be published shortly. Colonel Sir Charles Close, K.B.E., F.R.S., was elected President, in succession to Prof. Raymond Pearl, and Captain Pitt-Rivers was appointed General Secretary. The Third General Assembly will be held in Germany in 1934. The Chairman of the American National Committee, Dr. Louis Dublin, announced that certain services in the United

States would be prepared to pay to the Union 5000 dollars a year for three years on the condition that a similar sum was presented to the Union by individuals or Institutions in other countries. This offer was gratefully accepted, and the hope was expressed that the requisite contributions would be forthcoming from other countries.

The object of the Union is not only to assist and stimulate research in population problems, but also to supply a most useful and indeed necessary liaison between workers in different countries, and still more between the widely different spheres of scientific work concerned with the subject. The British Committee is most anxious to increase its membership. Those interested are invited to communicate with The Secretary, British Committee of the Population Union, 8 Eccleston Square, S.W. 1.

The following appointments have been made at the London School of Economics :—

Mr. R. H. Tawney to be Professor of Economic History.
Miss E. E. Power to be Professor of Economic History.
Mr. H. L. Beales to be Reader in Economic History.
Mr. M. M. Postam to be Reader in Economic History.
Mr. H. A. Shannon to be Assistant in Economic History.

Mr. C. S. Richards, M.Com. (Durham), Head of the Department of Economics and Economic History in the Natal University College for the last five years, has been appointed to the Chair of Commerce in the University of the Witwatersrand, Johannesburg.

The following additional volumes have been published in the Series of Reprints of Scarce Tracts in Economic and Political Science :—

6. *Labour's Wrongs and Labour's Remedy ; or, The Age of Might and the Age of Right.* By J. F. Bray. (1839) 1931 ; 218 pp. 7*s.* 6*d.* (Special price to members of the Royal Economic Society, 5*s.*)

7. *A Critical Dissertation on the Nature, Measures, and Causes of Value; chiefly in Reference to the Writings of Mr. Ricardo and his Followers.* By Samuel Bailey. (1825) 1931 ; xxviii + 258 pp. 7*s.* 6*d.* (Special price to members of the Royal Economic Society, 5*s.*)

8. *Lectures on Political Economy.* By Mountifort Longfield. (1834) 1931 ; 12 + 268 pp. 7*s.* 6*d.* (Special price to members of the Royal Economic Society, 5*s.*)

9. *The Graphic Representation of the Laws of Supply and Demand, and other Essays on Political Economy.* By Fleeming Jenkin. (1887) 1931; 6 + 154 pp. 6*s.* (Special price to members of the Royal Economic Society, 4*s.*)

Members of the Royal Economic Society wishing to subscribe to any of these volumes on the special terms stated above should send their applications, with a remittance, to the Assistant Secretary, Royal Economic Society, 9 Adelphi Terrace, W.C. 2.

Members are also reminded that Mr. Henry Higgs' edition of Cantillon's *Essai sur la Nature du Commerce en général* has just been published by the Royal Economic Society, and is obtainable by members at the special price of 7*s.* 6*d.* post free (published price 15*s.*). This volume comprises (1) a reprint of Cantillon's famous *Essai sur la Nature du Commerce en général*, in the form of an exact page-for-page transcript of the scarce original edition, with an English translation facing it by Mr. Higgs, incorporating where possible Postlethwayt's English version of certain passages which may, perhaps, represent Cantillon's original English text; (2) Jevons's article first calling the attention of modern readers to the importance of Cantillon's work, and (3) an essay by Mr. Higgs on the Life and Work of Cantillon, incorporating his earlier contributions to this subject. The book has been finely printed for the Society by the Cambridge University Press, and is embellished with two full-page portraits in photogravure of Cantillon's wife and daughter. It is bound in linen buckram. Its publication, at a price of 7*s.* 6*d.* to members, represents a remarkable attempt at producing a finely printed edition of a classic at a very low price. It is hoped that members of the Society will take advantage of the opportunity and will send their subscriptions for it to the Assistant Secretary, Royal Economic Society, 9 Adelphi Terrace, London, W.C. 2.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

1931. Part II. *A Statistical Analysis of Building Societies.* J. BRACE. *The Social Survey of Merseyside.* D. C. JONES. *Wholesale Prices in* 1930.

1931. Part III. *The Forthcoming Census; a Discussion.* S. P. VIVIAN (Registrar-General) and others. *The Relative Importance of Export Trade.* E. C. SNOW. *The American Census of Distribution,* 1930. I. DOUGLAS.

Economica.

MAY, 1931. *The "Paradox" of Saving.* F. A. VON HAYEK. *The Theory of Uncertainty and Profit.* J. R. HICKS. *The Port of Kingston-upon-Hull during the Industrial Revolution.* W. G. EAST. *The Payment of Reparations.* G. WALKER.

The Economic Record (Melbourne).

MAY, 1931. *Australian Monetary Policy.* K. S. ISLES. *The Depression in New Zealand.* G. LAWN. *Australian Capital Imports,* 1871–1930. R. WILSON. *The Terms of Trade.* C. V. JAMES. *The Railway Situation in New Zealand.* E. P. NEALE. *The Commonwealth Conciliation and Arbitration Act,* 1930. G. ANDERSON.

International Labour Review.

MAY, 1931. *The Present State of the Lignite Industry in the Various European Countries.* (Official.) *An Experiment in the Management of Indian Labour.* A. HOWARD.

JUNE, 1931. *Some Aspects of Conditions of Employment in the Film Industry.* A. KOHLER. *Italian Emigration and Colonisation Policy.* A. OBLATH. *The Relation between Industrial Production and the Workers' Disposition to Performance in Certain Important Branches of Industry.* O. LIPMANN.

JULY, 1931. *A Theory of Prices and Wages.* J. WARMING. *Workers' Education in Belgium.* M. T. NISOT. *The Fourth International Congress of Labour Statisticians. Index Numbers of the Cost of Living, and Retail Prices.*

Quarterly Journal of Economics.

MAY, 1931. *The Federal Reserve Act and Federal Reserve Policies.* S. E. HARRIS. *International and Domestic Commodities and the Theory of Prices.* L. B. ZAPOLEON. *The Comparative Fertility of the Native and the Foreign-born Women in New York, Indiana and Michigan.* J. J. SPENGLER. *Rural Co-operative Credit in China.* W. H. MALLORY.

American Economic Review.

JUNE, 1931. *The Content of Welfare.* A. B. WOLFE. *The Morris Plan.* L. N. ROBINSON. *Aspects of World War Debt Payments.*

J. L. BOSWELL. *Gold Standard and South America.* G. SUBERCASEAUX. *Productive Co-operation in the Moulders' Union.* F. T. STOCKTON. *Stock Dividends and the Exchange.* A. C. WHITAKER.

Annals of the American Academy of Political and Social Science.

MAY, 1931. *Organised Commodity Markets. Principles and Practices; Special Markets; Foreign Exchange Markets.* By various authors. *Zoning in the United States.* The history, procedure, and economics of the zoning system. By various authors.

Journal of Economic and Business History (Harvard).

MAY, 1931. *Ancient Athenian Mining.* G. M. CALHOUN. *Genoese Trade in the late Twelfth Century.* R. L. REYNOLDS. *English Gold- and Silver-thread Monopolies.* M. A. ABRAMS. *A Typical Virginian Business Man of the Revolutionary Era.* S. M. AMES. *S. and M. Allen; Brokerage.* H. M. LARSON. *Business and the Sherman Law.* C. F. TAEUSCH.

Journal of Political Economy.

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Index (Stockholm).

MAY, 1931. *The World's Staples; III. Coal.* J. H. JONES.
JUNE, 1931. *The World's Staples; IV. Sugar.* H. C. P. GEERLIGS.
JULY, 1931. *The World's Staples; V. Wool.* A. N. SHIMMIN.

Skandinaviska Aktiebolaget (Stockholm).

JULY, 1931. *Disturbances in the World Economy owing to Relative Changes in Prices.* G. CASSEL.

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MARCH–APRIL, 1931. *Le chômage.* A series of articles on the European conditions. *Le chômage en Grande-Bretagne.* F. C. BENHAM. *Le chômage en Allemagne.* E. LEDERER. *Le chômage en France.* C. PICQUENARD. *Un remède monétaire à la crise mondiale du chômage.* R. EISLER. *L'assurance-chômage, cause du chômage permanent.* (Anon.)

Journal des Economistes.

APRIL, 1931. *L'accord douanier Austro-Allemand.* E. P. *Les risques du crédit de banque par l'analyse statique des bilans.* M. CARSOW.

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Schmollers Jahrbuch.

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Zeitschrift für Nationalökonomie.

MAY, 1931. *Irving Fisher's Theory of Interest.* A. W. MARGETS. A companion with the author's earlier work, to the effect that the new formulation brings out better the monetary influences, and marks an important stage in the history of theory. *Technical Progress as a Factor of Cost of Production.* E. SCHIFF. A comparison of the divergent opinions of Schmalenbach and Baade on the reckoning of a coefficient of depreciation as caused by innovations. *Critical and Positive Observations on the Theory of Money.* A. BILIMOVIC. A demonstration of price determination by the aid of six typical constructions; a general theory is reached by using numerical examples instead of algebraical methods. *Gossen's Laws.* J. NEUBAUER. A critical survey, together with an analysis of discussions in current economic literature, maintaining the importance of the laws. *The Importance of the Mathematical Method for Political Economy.* F. KAUFMANN. Compares the fertility of this method in different sciences, and shows its heuristic importance in economics. (All these articles are in German.)

Weltwirtschaftliches Archiv.

APRIL, 1931. *Wirtschaftsverfassung, Geldverfassung, und Reparationen.* PROF. LUKAS starts from the view that the available supplies of gold and credit do not at present have their normal effects, in view of small elasticity in general prices and output. This fact leads to specially unfavourable results where Reparations have to be paid and received. On the basis of this analysis, the period of stabilisation is examined in relation to German economy. *Der Kreislauf des Geldes.* DR. H. NEISSER examines the conditions of velocity of circulation in the spheres of income and business, and shows how the demand for money is increased by discontinuities of sales and expenditure. From this point of view

E. CORBINO. The magnitude of the Wall Street crisis is largely attributable to the failure of the leading financial personalities in New York to take corrective measures sufficiently early. The crisis has shown how close is the interdependence between economic conditions in Europe and the United States, and has destroyed the American illusion of being able to maintain prosperity in America irrespective of what was happening to Europe. "In the struggle for world supremacy over the money market New York has lost a big battle, and, at least until it has reformed its stock exchange regulations, it must be content to recognise in London a saner sense of equilibrium and of appreciation of the real economic conditions prevailing in the world."

MARCH, 1931. *Conseguenze dei prestiti di Stato sul mercato del capitali.* G. U. PAPI. *Le attribuzioni del Consiglio Nazionale delle Corporazioni nel campo economico.* G. BASSANI. A description of the statutory functions of the National Council of Corporations in virtue of the Law of March 30, 1930 and of the Royal Decree of May 12, 1930. *Ricordi della vita e delle opere di Giuseppe Prato.* V. PORRI.

APRIL, 1931. *Il quarto teorema di J. S. Mill sul capitale.* S. E. DE FALCO. A brief discussion of Mill's proposition that demand for commodities is not demand for labour. *Le medie relative.* P. MARTINOTTI. A technical analysis of the use and significance of different types of relative averages or means. *La riforma agraria in Romania.* P. TERRUZZI. The agrarian reforms have had important political and social advantages for Rumania—they have preserved the country from what appeared to be an inevitable communist revolution; they have ruined the large Hungarian and Russian landowners who were determined opponents of Rumanian rule and have increased the importance of the Rumanian element; they have raised the standard of life of the peasants and rendered them independent of the large landowners. But, on the other side, they have diminished the aggregate wealth of the country, and have impoverished its cultural life by destroying the rich upper class; they have made the politicians supreme and have brought the maximum of corruption into public life.

MAY, 1931. *Cicli di produzione cicli del credito e fluttuazioni industriali.* M. FANNO. A lengthy and important article on the causes of the trade cycle, in the form of a chapter out of a book now in process of preparation. Professor Fanno finds the underlying causes of the recurrent trade cycle, firstly, in the fact that in a dynamic society disturbances of equilibrium are continually arising which lead to maladjustments as between production and consumption, investment and saving; secondly, in the length of the period of production. The instability of credit is of enormous importance in influencing the amplitude of the trade cycle, but it is not itself the governing cause. The writer claims to have partially anticipated Mr. Keynes in a book published in 1912 (*Le banche e il mercato monetario*), in which Wicksell's doctrine of the effects of divergences between the natural and the market rate of interest was linked up to the quantity equation, and the distinction between saving and investment was formulated. *La legge di sostituzione o di surrogazione.* PROFESSOR U. RICCI contends that what is commonly termed Marshall's *Principle of Substitution* should more properly be attributed to the earlier Italian economist Ferrara,

whose doctrine that the value of a commodity is determined by its cost of reproduction was based on the universal tendency to substitute the cheaper for the dearer commodity and the more efficient for the less efficient mode of production. *Politica economica o finanza?* R. FUBINI—G. F. VELLA. A plea for a wider conception of the scope of public finance, to include the effects on the community of all burdens or changes imposed on it by State action to satisfy collective wants, in addition to taxes or fees levied.

JUNE, 1931. *Considerazioni sui debiti della Germania e la bilancia dei pagamenti.* A. CABIATI. An interesting summary of the main facts relating to Germany's balance of trade, import of capital and payments on reparation account from 1925 to 1930. The writer stresses the importance of the payment of reparations as a factor depressing the prices of manufactured articles in the world markets, and forcing up the rate of interest in the creditor as well as the debtor countries. *Contributo alla storia dei prezzi in Sardegna tra la fine del secolo XVIII e il principio del secolo XIX.* A. BERNARDINO. *L'industria moderna e la funzione del grossista.* C. PAGNI.

La Riforma Sociale.

MARCH–APRIL, 1931. *Keynes sulla moneta.* A. LORIA. A review article devoted to Mr. Keynes's Treatise on Money. "Despite all the criticism on individual points to which it can be subjected, it remains none the less a masterly intellectual obelisk, sculpted, it is true, with hieroglyphs and arabesques, of which some are bizarre and others hard to decipher, but adorned in every part with august and magnificent characters and rearing its dazzling summit into the hyper-space of creative thought." *La gestione delle ferrovie dello Stato nel 1929–1930.* F. A. RÈPACI. *Crisi economica, protezionismo ed alti salari.* E. GIRETTI. *L'espansione commerciale vista dal lato tributario.* G. DI PAOLO. A brief discussion of recent Italian legislation dealing with the taxation of foreign branches and firms belonging to Italian companies. *Il mercato francese delle accettazioni.* E. RADAELI. In spite of all the financial advantages enjoyed by France in recent years, the total volume of French acceptances is at present appreciably less than 3 milliard francs, or about one tenth of the corresponding English figure, and barely half the French total before the War. The growth of French acceptance business is retarded by legislative restrictions, by the absence of specialised intermediaries, such as the accepting houses, merchant bankers and discount houses in London, and by the lack of a free and open discount market.

MAY–JUNE, 1931. *Il neo-protezionismo del* PROF. KEYNES. A. CABIATI. A criticism of Mr. Keynes's proposal for a revenue tariff. *Effetti delle fluttuazioni nel potere d'acquisto dell'oro sulla vita economica delle nazioni.* R. BACCHI. *Sindicati e cooperazione.* B. RIGUZZI. *La politica finanziaria ed economica durante il governo di Francesco Crispi.* G. CARANO-DONVITO. *Spirito di risparmio e depressione economica.* G. SACERDOTE-IACHIA.

De Economist (Haarlem).

APRIL, 1931. *Over den aanwas van bevolkingen—Duitschland en Nederland.* F. W. 'T HOOFT. Having regard to the influence of

such causes as emigration, increasing longevity, etc., the writer emphasises the importance of the age distribution in interpreting population statistics. Comparison should be made, not with a chance distribution, but with an "ideal" population. Various methods of doing this are considered, and the results are applied to the question of determining what part of the increase of population is due to the lengthening of life, and what part to the excess of births. The conclusion is that the increase of population is due primarily to the prolongation of life. The influence of prosperity and adversity on the birth-rate is considered with special reference to the recent history of Germany, and it is argued that there is an automatic and immediate adaptation of births to economic conditions. *Eenige gegevens omtrent de ontwikkeling van de industrieele structuur in de Vereenigde Staten van Noord-Amerika na 1900. III.* P. LIEFTINCK. A further instalment relating to economic conditions in the U.S.A., dealing with the process of concentration in Industry. The article discusses the position in leather, shoemaking, salt, beet-sugar, coke, petroleum, rubber, meat-packing, milling, shipbuilding. A comparison is made as between industries in which, between 1914 and 1925, the average number of workers per industrial unit has more than doubled, and those in which there has been the greatest diminution, also those in which the number employed per unit has been greatest. *Psychisch inkomen en Psychisch vermogen. III.* J. VAN DER WIJK. The conclusion of the mathematical discussion on distribution of income.

MAY, 1931. *Het goudvraagstuk.* C. A. VERRIJN STUART. A memorandum on the gold question for the Gold Delegation of the Financial Committee of the League of Nations. *De crisistheorie van den heer S. de Wolff.* A. BAARS. A criticism of a Marxian theory of crises advanced by Mr. de Wolff, to which attention has recently been drawn by his admission as *privat-docent* in Amsterdam.

JUNE, 1931. *De Economische Structuur eener Socialistische Volkshuishouding.* G. MORREAU. There is to-day a change in the line of criticism directed against Socialism. In place of criticisms of the system of Marx, it is argued that Socialism will necessarily lead to a diminution of economic well-being, and in particular that the absence of the mechanism of price-formation will deprive production of direction and control. The writer refers in particular to the works of Mises, Brutzkus, and Halm, and argues that these authorities overstress this argument in their criticism of Socialism, and that, in fact, apart from the "motive of gain" operating by and through changes in prices, Socialism would not be without a method of directing production. (This is the first instalment of a posthumous article by Mr. Morreau.) *Die Entwicklung der Sowjetwirtschaft zum Vollsozialismus.* BORIS BRUTZKUS. A discussion (in German) of the Five-Year Plan. The attitude towards the Five-Year Plan has recently changed in foreign countries, due partly to increase in Russian foreign trade, and partly to the depression experienced in capitalist countries. The writer emphasises the decline in quality in every direction in agriculture, industry, and capital construction. Russia, as in the time of war communism, has reached a position in which prices cease to fulfil their function. After two and a half years of the Five-Year Plan, it has arrived at a market-less and money-less economy. The workers are much worse off than before the inauguration of the "Plan." Statements

to the contrary rest on a statistical error. Though wages may be nominally higher, the workers are rationed and the goods are not available. The defects admitted by Soviet leaders (in passages quoted in this article) are the defects of a socialist system in which goods are sent about the country, not according to the demand of the market, but according to a plan elaborated *a priori*. The question of the success or failure of the Five-Year Plan resolves itself into that of the possibility or impossibility of a marketless and money-less (*i.e.* a completely socialist) economy. *De Uitgifte der Zuiderzeegronden.* A. A. TER LAAG. A further article on the disposal of the lands recovered from the Zuider Zee, arguing for their retention by the State. Professor Bordewijk replies.

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Dictionnaire de sociologie, familiale, politique, économique, spirituelle, générale. Publié sous la direction de T. MAINAGE. Fasc. I. Paris: Letouzey, 11¼″. Pp. 255. 30 *fr*.

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ONIDA (P.). I "finanziamenti" iniziali d' impresa, le emissioni di azioni e di obbligazioni. Milan: Industrie Grafiche Italiane Stucchi. 10″. Pp. 435. 60 *l*.

Regio Istituto Superiore di Scienze Economiche e Commerciali, Torino. In onore e ricordo di Giuseppe Prato, saggi di storia e teoria economica. Torino. 1931. 10″. Pp. xliv + 675.

Official.

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THE ECONOMIC JOURNAL

DECEMBER, 1931

THE CHANGED OUTLOOK IN REGARD TO POPULATION, 1831–1931 [1]

TIMES change, and economic theories change with them. We need no longer be ashamed of the fact, as we were inclined to be in the old days, when our colleagues in other Sections of the Association professed to despise us for disagreeing among ourselves and perpetually overthrowing conclusions arrived at by our predecessors. We hear less now of the certainty and finality of the other sciences, and can face their exponents unabashed, confident that theories may be useful for leading us on towards the truth without being immutable and exempt from revision.

I think that the biggest change made in economic theory during the last hundred years is to be found in the treatment of the subject of Population. In 1831, Malthus was still alive, and quite unrepentant for the shock he had given the public thirty-three years earlier by his *Essay on the Principle of Population as it affects the future Improvement of Society.* No one, it is true, any longer attached much importance to his doctrine of the inherent incompatibility of the ratios in which it was possible for population and food to increase, but the disfavour with which he regarded what he considered the natural tendency of population to increase was shared by most of the economists of the orthodox school, who had adopted the theory of diminishing returns to agriculture which was evolved in England from the local conditions of the very "short period" of the Napoleonic war.

That theory, not as now taught in a form which makes it innocuous, but as taught in the early years of the nineteenth century, purported to show that the natural limitation of fertile and well-situated land must necessarily mean that the more numerous the people, the more difficult it must be for them to feed themselves. It was admitted that there were counteracting circumstances, summed up as "the progress of civilisation," which, in fact, had throughout history prevented the growing population of the civilised world from actually finding it more

[1] Presidential address before Section F of the British Association, London, 1931.

difficult to feed itself, but these circumstances were regarded as making only temporary headway against the general tendency, and not, like it, as being a law of nature. J. S. Mill, in his *Principles of Political Economy with some of their Applications to Social Philosophy*, which, though not made into a book until seventeen years after, was really thought out before 1831, and represents the ideas of 1800 to 1830 better than any other work, even ventured to assert that though the people of his time were better off than the people of a thousand years before, they would have been still better off if the increase of population had been less.

The economic history of the hundred years has tended to bring about a very complete reversal of economists' view of this matter.

The hundred years began with developments which threw great discredit on the fundamental assumption of the old school that the extension of human occupation of land necessarily meant that less fertile and less well-situated land must be occupied as numbers grew. It was easy for men who saw arable cultivation creeping over barren hills in England and stony "bogs" in Ireland to believe in that theory when Chicago was a collection of Indian huts, and Broadway, New York, a rough cart-track to a farm, but the application of steam to ships and railways enabled mankind to extend easily over an immense area of land more fertile than much of what was occupied before. And as for situation, not only did the improvement in transport, coupled with the violations of natural geography involved in the cutting of the great ship canals, bring the "more distant" lands nearer the "market," it also eventually brought "the market" to the "more distant" lands.

So we no longer think of the first cradle of the human race (or the first cradles of the human races if there are more than one) as the most fertile and well-situated spot (or spots) from which men have gradually been forced outwards. You probably all know the opinion of the British Army in Mesopotamia, expressed by the sergeant who was told by an officer that he was now on the very site of the Garden of Eden: "Well, Sir, all I can say is that if this was the Garden of Eden it's no wonder the twelve apostles mutinied." Though the sergeant was evidently not a well-read man, the change of view had reached even him.

In the later part of the hundred years scientific discovery in various directions has led to a complete change of emphasis in regard to the importance of what the old economists used to call "improvements." The old economists thought of hedges and ditches, drains, and a few other trifles of that kind which would enable corn to be more easily produced from European fields, and

just a little of better breeding of cattle and sheep. These were things which might, they believed, interrupt for a time, now and then, the general downward drift of the returns to agricultural industry, but could not do more than that. Modern science has changed our outlook. We set no bounds to the possibilities of improvement. We expect to make unwholesome areas healthy, and to modify vegetable as well as animal products so that they will better serve our needs. Primitive mankind presumably fought and killed some of the now extinct carnivora; advanced mankind fights and will kill the locusts and the smaller insects which have hitherto prevented much use being made of some of the most fertile areas of the world. We smile now at the suggestion made in 1898 from the Presidential chair of the Association, that it would soon become very difficult to increase much further the production of wheat.

Thus, even if we still expected population to increase very rapidly, we should not believe, as J. S. Mill did, that it "everywhere treads close on the heels of agricultural improvement, and effaces its effects as fast as they are produced" (*Principles*, Bk. IV. ch. iii. § 5). But in fact, Cotter Morison's cry, made only a generation ago, that all would be well if only we could stop for a few years "the devastating torrent of babies" would seem grotesque to-day, for we do not now expect rapid increase of population to continue much longer, even if it becomes progressively easier to obtain subsistence.

The approach of reduction in the rate of growth of population began to show itself in England in the second half of the 1871–80 decade, when the annual number of births became nearly stationary after the rapid increase recorded down to 1876. But the public takes little notice of the supply of people furnished by the births. Just in the wooden way in which illiterate farmers and unbusinesslike old ladies look at their balances at the bank, so the public looks at the censuses. The census of 1881 showed an increase of 14·36 per cent. in the decade, which was higher than that shown by any of the censuses except those of 1821 and 1831, which were probably unduly swollen by the diminishing incompleteness of the enumerations. In 1881–91, in spite of high emigration, the rate of increase dropped only to 11·65 per cent., so rapid increase of population was still regarded as the normal thing which everyone should expect. The Royal Commission on the Water Supply of the Metropolis in 1893 deliberately rejected the reasonable suggestion that the rate of increase in Greater London might continue to fall as it had already begun to do, and

relying on a continuance of observed increase, estimated the probable population in the present year, 1931, at two and three-quarter millions more than the recent census has shown it to be.

But I had noticed that the old rapid increase in the annual number of births seemed to have come to an end, and working on the ages of the people as recorded in successive censuses, I put before Section F of the Association at its meeting in Ipswich in 1895, a paper (subsequently published in the ECONOMIC JOURNAL for December in that year) in which I estimated the number of persons who would be living at each census up to that of 1951 on the assumptions that migration, mortality, and, not the rate, but the absolute number of births remained stationary. I found that on these hypotheses the population of England and Wales would stop increasing during the present century, and would have only a trifling increase after 1941. The paper suggested that this was, at any rate, not improbable.

Hostile critics derided what they called my "prophecy," and for some time events were unfavourable to me. Emigration fell off enormously, mortality decreased, and the births increased slightly, so that the census of 1901 showed an increase of 12·17 per cent. in the decade, the absolute increase of three and a half millions being the largest recorded. But the situation was not fundamentally altered, since the increase of births was due entirely to the drop in emigration, which had caused a larger proportion of persons of parental age to remain in the country. At the 1901 Meeting of the British Association and in the *Fortnightly Review* of March 1902, I returned to the charge with a paper on the "Recent Decline of Natality in Great Britain," in which, using a method of weighting the annual numbers of marriages by their proximity to the births recorded for each year—a method which seems to have been beneath the notice of the mathematical statisticians of that period—I was able to show, I think conclusively, that the number of children resulting from each marriage was falling steadily and rapidly, and insisted with more emphasis than before on the "considerable probability of the disappearance of the natural increase of population—the excess of births over deaths—in Great Britain within the present century."

The decade 1901–11 was indecisive; the ratio of increase was smaller than in any of its ten predecessors, but the absolute amount of increase just topped that of 1891–1901, and the number of births till 1908 or 1909 seemed to indicate some recovery of natality. But this was illusory. Even before the War the births had got down again to the level of 1876. The War sent them

tumbling down to about three-quarters of that number, and now, after a wild but very short-lived recovery when the Army returned from abroad, they seem inclined to settle at the War figure—three-quarters of the number attained more than fifty years ago, when the total population was twenty-six millions instead of forty millions, as it is now. The ratio of births, legitimate and illegitimate, to my weighted figure of marriages which was just over $4\frac{1}{2}$ fifty years ago, fell gradually and steadily to $3\frac{1}{4}$ before the War caused it to collapse. (See the Appendix.)

It was commonly supposed by many of those to whom percentages serve rather to hide than to expose the facts on which they are based, that the diminution of births was being counterbalanced by the decline of infant mortality. It is true, of course, that diminution of infant mortality mitigates the effect of decline of natality, but the degree in which it can do so obviously decreases as the rate of infant mortality falls. When that rate is 500 per thousand, as it probably was here in the reign of Queen Anne, and may be still in great parts of Africa, a cutting down of births by 25 per cent. can be counteracted completely by a drop of one-third in the infantile mortality rate. But when the infant mortality rate is down to 100 per thousand, it would have to fall to nothing at all in order to counteract a decline of only 10 per cent. in the number of births. In fact, the rate has fallen in England and Wales from about 140 to about 70 in the fifty years from 1881, and this drop to one-half only balances about one-fifth of the decline in the number of births.

Though there were eminent dissentients only a few years ago, statisticians are now agreed that in the absence of some great and unexpected change, the increase of population in England and Wales will come to an end at a very early date. Even the lay public has been to some extent enlightened and rather shocked by the recent census announcements that the population of Scotland has actually decreased in the ten years, and that of England and Wales has increased only 2,061,000, as against 3,543,000 in the ten years from 1901–11, though the emigrants have been 324,000 less.

The same change is observable in some degree in other Western European countries and our own oversea offshoots. The cause of it—birth control—will doubtless in time affect the rest of the world, so that while we may expect considerable increase—even an increase much more rapid than at present, owing to decrease of huge infant mortality—to take place among the more backward peoples for another half-century at least, there is no reason whatever for expecting the population of the world to " tread close on

the heels of subsistence " in the future, even if it may be correctly regarded as having done so in the past.

This change in our expectations involves many changes of emphasis, both in the theory of production and in that of distribution.

Two of them are perfectly obvious. First, the need, which J. S. Mill and most of his contemporaries and immediate predecessors felt so strongly, for insisting on the due restriction of population, has completely disappeared in the Western countries. Economists do not now require to talk as if the first duty of men and women was to refrain from propagating their race. Secondly, the need for insisting on the desirability of saving has become less pressing. A rapidly increasing population requires a rapidly increasing number of tools, machines, ships, houses, and other articles of material equipment in order merely to maintain without improving its economic condition, while at the same time the maintenance of a larger proportion of children renders it more difficult to make the required additions. To a stationary population saving will still be desirable for the improvement of conditions, but it need no longer be insisted on as necessary for the mere maintenance of the existing standard.

But there are other changes of equal importance which are more likely to be overlooked. One is in regard to the weight which we attach to the different kinds of production. In the middle of the eighteenth century, " subsistence," and what we should consider a very coarse and inadequate subsistence probably seriously deficient in vitamins, appeared so much the most important economic good that the French *économistes* insisted on calling all labour which did not get something out of the soil *stérile* or barren; and our own Adam Smith, with all his common sense, while admitting the manufacturing class into the ranks of " productive " labourers, insisted on excluding domestic servants, physicians, guardians of law and order, and all other workers who did not make up material objects, or who were not employed for profit (he never was quite sure which criterion he meant to stand by). The great Christian philosopher, Paley, believed that nothing more than a " healthy subsistence " was required for perfect happiness. Even Malthus and his immediate disciples, when they insisted on the desirability of the working-class having a high standard of comfort, seem to have done so more because this would prevent the " misery " of semi-starvation for adults and absolute starvation for infants than because there is a direct advantage in being comfortable. Ricardo said " the

friends of humanity cannot but wish that in all countries the labouring classes should have a taste for comforts and enjoyments," not apparently because comforts and enjoyments are good in themselves, but because "there cannot be a better security against a superabundant population," the population being superabundant, in his opinion, when it is subject to famine.

All this emphasis on food is now out of date. We no longer look forward to a future in which an increasing population will be forced by the operation of the law of diminishing returns to devote a larger and ever larger proportion of its whole labour force to the production of food. We know that even in the past, with a rapidly increasing population, the returns to agricultural industry have increased so much that civilised mankind has been able to feed itself better and better, while giving a smaller and ever smaller proportion of its whole labour force to the production of bare subsistence; and we can reasonably expect that the increase in the productiveness of agricultural industry will be at least as great in the future, so that under the combined influence of the "narrow capacity of the individual human stomach" and the stationary number of stomachs, not only a smaller and ever smaller proportion, but a smaller and smaller absolute number of workers will be able to raise food for the whole.

Even the politicians, who for the most part follow the economists with a sixty or seventy years' lag, are beginning to realise the change, and are losing their enthusiasm for schemes for "settling more people on the land," either in colonies or at home, and thereby increasing the already excessive depreciation of agricultural compared with manufactured products. The numerous subsidies which they still give to agriculture are mostly of an eleemosynary character intended to relieve distress, and the encouragement which they give to agricultural production is only an incidental effect, unintended and often deplored. They are defended, not on the ground that they increase food, but because they are supposed to increase employment.

The necessary change of emphasis applies not only as between food and other things, but also as between most primary and most finishing industries. In face of rapidly growing knowledge and slowly growing or stationary population, it is inevitable that the "staple" or "heavy" industries which provide materials should decline relatively to those which provide finished goods and services. The demand for each of such things as pig-iron and yards of cloth is easily satiated; and so also, no doubt, is the demand for cricket-bats and chauffeurs. But the minor or

"lighter" industries are susceptible of an indefinite multiplication which makes the demand for their products, taken as a whole, insatiable. Increase a person's power of spending, and he will not increase his purchases in weight or bulk so much as in refinement of form, so that a richer people will devote a less proportion of their labour to producing things like pig-iron and bricks. Moreover, the mere fact of the disappearance of rapid increase of population tends to increase the proportion of demand which can be satisfied from scrap without fresh primary production. So, given a stationary population with rapidly increasing knowledge applied to production, we may expect the already observable tendency towards a less proportion of the whole labour-force being employed in the "heavy industries" and a larger in the lighter industries to become more pronounced. Perhaps we see this even now in the slight drift of industrial population from the North to the South of England which appears to be taking place.

Another change of emphasis, of little importance on the Continent, where the West-Ricardian theory of rent never took real root, but of great importance in England and other English-speaking areas, is in respect of the landowners' share of the community's income. The disappearing bugbear of diminishing returns carries away with it the vampire rural landlord, who was supposed to prosper exceedingly when diminution of returns made food scarce and dear. You all know the famous passage in which J. S. Mill described the landlords as they appeared to him and the school which he, a little belatedly, represented :—

> "The ordinary progress of a society which increases in wealth is at all times tending to augment the incomes of landlords; to give them both a greater amount and a greater proportion of the wealth of the community, independently of any trouble or outlay incurred by themselves. They grow richer, as it were, in their sleep, without working, risking, or economising." (*Principles*, Bk. V. ch. ii. § 5.)

Perhaps the disciple went a little beyond his master, Ricardo, in asserting so roundly that in a prosperous society the landlords must tend to get a larger and ever larger *proportion* of the whole income, but there can be no doubt that this was the impression which the Ricardian school conveyed to the public, and which formed the foundation for Henry George's scheme of land nationalisation and the agitation for land-value taxation. If the school had only meant to teach that the land became more valuable absolutely—in the sense of being worth a larger absolute amount

of commodities rather than a larger proportion of all the commodities and services constituting the community's income—they could not have supposed land so peculiar, since it would share this characteristic with many other things—with anything which was more limited in supply than the generality.

To grasp the completeness of the change of view which has taken place in the last hundred years, we must notice that Mill and the whole school which he represented were thinking not of the few lucky landlords who have inherited land which has been selected by nature or accident as the site of a city, but of the ordinary rural agricultural landlords. So far have we moved that the land-value taxers of to-day quite cheerfully propose to exempt all " purely agricultural value " from the imposition which they advocate.

Envy of the happy owners of such urban land as rises in value more than enough to recoup what they and their predecessors in title paid in road making, sewering and other expenses of "development " plus loss, if any, in waiting for income, still plays a part in contemporary politics, but the economist foresees that there will be at any rate less of such rise of value when the adult population ceases to increase and the demand for additional houses and gardens consequently disappears. He realises that if any such rise continues, it will be due to the people being not only able, as they doubtless will be, to occupy a larger area with their houses and gardens, but also desirous of doing so. He will think this quite possible, but will not be confident about it, when he reflects that the vast spread of villadom may be only a temporary phenomenon, and that the married couples of the future, childless or with small families, may be more content with flats in towns and little bungalows with tiny curtilages right in the country.

The disappearance from economic theory of the picture of the vampire landlord taking an ever-increasing proportion of the whole produce of industry which was itself decreasing per head of workers, leaves the theoretic arena open for discussion of the sharing of the whole produce between earnings of work and income derived from possession of property of all kinds.

As to this, the economists of a hundred years ago had nothing to say. If they thought of the question at all, they mixed it up hopelessly with the rate of interest on capital, imagining property to receive a smaller proportion when the rate of interest fell, and *vice versa*. The Socialists, who in fact followed them the more closely the more they denounced them, failed completely to clear up the confusion, and it dominates the mind of the lay public even

now—much, I admit, to the discredit of the economists, who should have taught that public better.

While there are no statistics on the subject worth much, and none covering any considerable area either of place or time, past history is sufficiently known to assure us that increasing civilisation has, in fact, made the aggregate share of property grow faster than that of labour, the obvious cause of this being that useful things constituting property have grown faster than population, and so much faster that what decline of the rate of interest has taken place has not been sufficient to counteract the tendency. The most primitive people had scarcely any tools, and their buildings, if any, could be erected in a few hours. Ownership certainly did not then give a claim to about one-third of the whole income, as statistics suggest that it does in modern Western countries.

There is nothing to show that this tendency will be either reversed or intensified by a cessation of the growth of population. The cessation will, of course, tend to reduce the desirability of additional equipment; a large part of the additions of the past have been required simply to enable the additional people to be provided with tools, houses, and other instruments of production or enjoyment. But additions to equipment will be made with less sacrifice of immediate enjoyable income than before, so that the increase of quantity may be sufficient to counteract the decline in the value of the units. Moreover, it is quite impossible to say what the tendency of invention may be in the future—whether to enhance or to diminish the value of additional material equipment.

But the history of the last hundred years suggests that this question of the division of income between property and labour is losing whatever importance it possessed. The economists and socialists of a hundred years ago were little removed from the time when it was common to talk of "the labouring poor," as if society was pretty sharply divided into poor workers on the one side and rich owners of property on the other. There were, indeed, some members of the propertied classes who were poor, but they were offshoots of the wealthier families rather than members of the proletariat with a little property. How innocent the mass of the people were of the crime of owning anything you may realise if you recollect that none of the agencies with which we are familiar for enabling them to invest had then got beyond the embryo stage. Friendly societies, co-operative societies, building societies, savings banks, are all modern growths. Before their advent a worker could, of course, become a small master—never, I think, a small mistress—and from a small master grow to be a big master, but if,

for any reason this was not open to him, what could he do with savings, supposing he was able to make any? Put them in a stocking, or the thatch, or under the garden soil, and if they happily escaped accident there, and accumulated sufficiently, give them to an attorney of doubtful honesty to be lent out on mortgage. I remember only about fifty years ago being told by a booking-clerk at a moorland station, about a hundred miles from London, how two old women had recently paid for return tickets to London in threepenny-bits, and by a solicitor that an old man from the same district had just brought him for investment on mortgage a large sum in gold which he had so far been keeping in the thatch of his cottage. All this is now changed, and when property, as a whole, and not merely the large property-owners, is attacked, the great investing agencies of the " working classes " become formidable opponents and are supported by the small direct investors who have been helped by them.

And while many of the working-class have become property owners, many of the propertied class have become the paid servants of public companies and other institutions, so that the old sharp distinction between the wage-earner and the capitalist is become a thing of the past, and the division of income between property and labour is no longer a division between two classes composed of different individuals, but a division between two sources of income largely possessed by the same individuals.

Thus, in Distribution, emphasis on the old categories of land, capital and labour is rapidly becoming obsolete and is being replaced by emphasis on individual riches and poverty, however arising. No longer do we think of relieving poverty by improving the terms of the general bargain which theory conceives labour as making with capital; we are much more likely to meet with arguments that individual poverty is being caused by this general bargain being too much in favour of the wage-earners. It is no longer the lowness of standard earnings that worries the philanthropic economist, but the fact that so many people are unable to rank themselves among recipients of those wages. Emphasis is on unemployment.

Unemployment is not really a very modern phenomenon. The crowds of beggars who collected their daily dole in the Middle Ages from the monasteries and from private wayfarers and householders were, perhaps, as large a proportion of the population as the normal registered unemployed of to-day. The " distresses " of the period just preceding a hundred years ago seem to have been accompanied by enormous unemployment, but we have no reliable

statistics, and the loose statements, such as that in Birmingham in 1817, one-third of the workpeople were wholly unemployed and all the rest on half-time, do not help us much. But so far as I know, it has never been contended that history shows unemployment to be greater when population (or even population of working age) is rapidly increasing.

Yet it is common to talk of "the difficulty of providing employment for a rapidly increasing population," and some eminent authorities quite recently endeavoured to console the public by alleging that the coming decline in the growth of numbers will greatly alleviate the present situation in regard to unemployment.

I believe this to be a profound error, based on an elementary misconception of the origin of demand. The old proverb "With every mouth God sends a pair of hands" is true and valuable, but no more so than its converse, "With every pair of hands God sends a mouth." The demand for the products of industry is not something outside and independent of the amount of products. The demand for each product depends on the supply of products offered in exchange for it, and the demand for all products depends on the supply of all products. Consequently, there is not the slightest danger of the working population ever becoming too great for the demand for its products taken as a whole.

Unemployment arises not from insufficient demand for the products of industry as a whole, but from the number of persons offering to work in particular branches of industry being in excess of the number admissible, having regard to the conditions and wages which are required to satisfy both the would-be workers who are unemployed and the persons already in employment. If the unemployed will not take what employers would offer them, the case is simple, and it is only a little more complicated if they are willing to take, and the employers are willing to give, something less than what is paid to the persons already employed; but the two parties are prevented from coming to terms on that basis by the fact that those already employed would go out on strike if the additional contingent was accepted at a lower rate than that which they themselves are receiving.

Now one of the commonest causes of such a situation is a falling off of demand for the products of a particular branch of industry. The fact that the demand for any product, let us say coal, for example, falls off, is a good reason for fewer persons being employed in that branch of industry and more in other branches. If the diminution of demand is very gradual, the necessary reduc-

tion in personnel can be effected by a cessation of recruiting. Many a branch of industry has gradually wilted away in this manner without much inconvenience or hardship to anyone. But if the diminution is more sudden, unemployment results owing to the natural reluctance of persons skilled, or at any rate experienced, in the particular branch of industry to leave it and try for employment in some other. The thoughtless outsider is apt to say that both the unemployed and those who are still employed in the branch should accept lower wages, and so, by cheapening the product, extend the demand for it. As a temporary palliative this may sometimes be reasonable, but it is evidently never the best final solution of the difficulty. It is not reasonable that a trade should be continuously worse paid than others merely because the demand for its products was once bigger than it has become. What the diminution of demand calls for is a redistribution of labour force, fewer persons being allotted to the branch of industry of which the products are less in demand, and more persons to the other branches.

But when population is increasing, absolute diminutions of demand are likely to be somewhat fewer, and somewhat less acute when they do occur, than when population is stationary. If, for example, by the introduction of oil, or more economical consumption, the average person's demand for coal is reduced by one-tenth, in a stationary population the total demand for coal would be reduced by one-tenth; but if the population in the same time increased 12 per cent., the total demand would be not reduced but slightly increased, and there would be no employment difficulty.

We ought, therefore, not to imagine that a stationary or declining population will rid us of the trouble of unemployment. It will provide more rather than less reason for promoting mobility of labour in place and occupation, and we shall have to take more care, rather than less, than at present to secure that arrangements which seem superficially desirable do not hinder that mobility.

It is inevitable, I suppose, that the question will be asked, whether cessation of the growth of population is to be regarded as a good or an evil turn in human history. But the limitations of economics and perhaps of human nature prevent any straight answer being given. Nationalists in each nation want their own nation to increase in comparison with others; if they think of the others' interest at all, they say and believe that it will be promoted by the predominance of their own nation. We can get no further that way, since the pretension of each is contradicted by the pretensions of the others. If we try to avoid this obstacle by

saying that we will ignore national and racial differences, and assume either that somehow the generally fittest will grow at the expense of the others, or that each as well as the whole will have stationary numbers, we still have to face the fact that our conception of the distinction between economic welfare and welfare of other kinds is nebulous in the extreme, and that if it was clearer, we should not know—I think we never can know—how much of the one should be regarded as equal to a given quantity of the other.

Different persons will give different answers. Some agree with Paley that ten persons with sufficient subsistence must be in possession of more welfare than a single millionaire; others with J. S. Mill that the world turned into a "human anthill" would be an undesirable place of residence. The same person will give different answers according to his mood at the moment. Personally, I spent my early boyhood in a town which throughout my life has been the most prosperous in England, and I have long lived in another which, having added motor manufacture to education in its old age, has lately been growing nearly as fast, and sometimes when I contemplate their growth I feel a little like G. R. Porter when he wrote the *Progress of the Nation*, during the period 1800 to 1831. At other times, and I think more often, I regret the open heath and the untouched pine wood which stretched in my early recollection to within a few hundred yards of the Bath Hotel at Bournemouth, and I hate the gasworks straddling the river and the bungalows shutting in the main roads out of Oxford; then I agree with Mill that it is well that population should become stationary long before necessity compels it.

After all, the increase must stop some time, and watching the effect of the stoppage will be a very interesting experience which I should like to have been born late enough to enjoy.

EDWIN CANNAN

APPENDIX

Births and their Ratio to Marriages in England and Wales, 1851–1930.

Year.	Births.	Ratio.	Year.	Births.	Ratio.	Year.	Births.	Ratio.
1851	616	4·36	1878	892	4·51	1905	929	3·61
1852	624	4·30	1879	880	4·49	1906	935	3·58
1853	612	4·14	1880	882	4·56	1907	918	3·51
1854	634	4·17	1881	884	4·58	1908	941	3·55
1855	635	4·12	1882	889	4·59	1909	914	3·49
1856	657	4·25	1883	891	4·55	1910	897	3·39
1857	663	4·25	1884	907	4·58	1911	881	3·31
1858	655	4·18	1885	894	4·48	1912	873	3·26
1859	690	4·39	1886	904	4·53	1913	882	3·25
1860	684	4·28	1887	886	4·45	1914	879	3·19
1861	696	4·30	1888	880	4·41	1915	815	2·89
1862	713	4·43	1889	886	4·41	1916	786	2·67
1863	727	4·45	1890	870	4·27	1917	668	2·27
1864	740	4·46	1891	914	4·39	1918	663	2·29
1865	748	4·42	1892	898	4·22	1919	692	2·38
1866	754	4·35	1893	915	4·23	1920	958	3·12
1867	768	4·35	1894	890	4·07	1921	849	2·64
1868	787	4·42	1895	922	4·19	1922	780	2·41
1869	773	4·34	1896	915	4·11	1923	758	2·37
1870	793	4·44	1897	922	4·05	1924	730	2·31
1871	797	4·45	1898	923	3·97	1925	711	2·28
1872	826	4·54	1899	929	3·89	1926	695	2·26
1873	830	4·53	1900	927	3·79	1927	654	2·17
1874	855	4·48	1901	930	3·74	1928	660	2·19
1875	851	4·39	1902	941	3·74	1929	644	2·13
1876	888	4·53	1903	948	3·72	1930	649	2·14
1877	888	4·52	1904	945	3·69			

The above table gives the births in thousands for each year and the ratio between this number and a figure for marriages made up of the sum of 2·5 per cent. of the marriages of that year, 20 per cent. of those of the preceding year, and 17·5, 15, 12·5, 10, 7·5, 5, 3·75, 2·5, 1·75, 1·25, and 0·75 for the years before that. In the table for 1851 to 1900, printed in the 1901 Report of the British Association, and the *Fortnightly Review* for March 1902, the ratio is calculated for the legitimate births only, but the inclusion of the illegitimate makes very little difference and is defensible. Mr. L. R. Connor, in the course of a much more elaborate study than mine, gives figures for 1892 to 1923 (*Statistical Journal,* May 1926, pp. 562–3) which agree very closely with the above, though his weighting of marriages is rather different and includes thirty years before the date instead of the twelve at which disinclination for further labour caused me to stop.

From 1914 onwards the ratio as well as the number of births is disturbed by (*a*) the absence of men from their homes owing to the War till 1919, and (*b*) by the abnormal mortality of husbands owing to the War. The effect of the second influence in reducing the proportion of births to marriages must, of course, have been steadily diminishing, which makes the decrease in the proportion shown since 1923 the more significant.

READJUSTMENT IN AUSTRALIA

I

In the Economic Journal for December last I gave an account of the effects of the world depression upon Australian economic conditions, and made certain suggestions for meeting the situation. The disorganisation of public and private finance in Australia was due, in part, to unsound policy, particularly an ambitious borrowing policy, and, in part, to the sudden cessation of overseas borrowing and a heavy fall in export prices. Had the world depression not occurred it would have been possible to adjust the Australian economy to a declining and ultimately much lower volume of overseas borrowing without serious internal disturbance. A fall of some 5 per cent. in the standard of living would have perhaps been sufficient to enable private enterprise to absorb labour displaced by the reduction in loan expenditure. A reduction of, say, 5 per cent. in public expenditure and a moderate increase in taxation would have produced budget equilibrium. These adjustments were overdue in any case and would doubtless have been resisted. It was unfortunate for Australia that the necessity for them became apparent at a time when the world was entering upon a depression of almost unparalleled magnitude. The events of the past year have emphasised the importance of the fall in export prices as the fundamental cause of the present acute depression in Australia. For the year ending June 30, 1929, exports of merchandise amounted to £137·7 m. For 1930–31, in spite of an increased volume of exports, the value in British currency of Australian exports was only £75·8 m. This is a decline of £62 m., which together with the loss of income from overseas borrowing gives a total loss of income from overseas of £90 m. A reliable measure of the prices of imported goods is not available for last year, but it would not under-estimate the fall to place it at 15 per cent. compared with 1928–29. The loss of real income from overseas was, therefore, of the order of £75 m. for 1930–31, of which over £50 m. was due to the fall in export prices. The repercussions of this loss of income from overseas upon the spending power of primary producers and others directly dependent upon the expenditure of loan money makes the total loss much greater during the period

of adjustment. Thus the Committee of Under-Treasurers and economists which examined the budget situation in May estimated that the national income had declined from £645 m. in 1928–29 to £450 m. in the current year. Allowing for a reduction of 20 per cent. in prices this is a loss of real income of about 14 per cent. While, however, there is a serious disequilibrium between prices of exportable goods and of the goods and services of the protected and sheltered industries and a large volume of unemployment, the loss is much greater. The fall in the prices of exports reduces the money income of export producers despite the increase in the volume of exports. The rigidity of costs in sheltered and protected production maintains high prices, and at the lower level of spending power in the export industries there is a contraction of the volume of sheltered and protected production. The money income in these industries consequently falls, and so does the real income for the time being. As sheltered and protected prices decline and export prices increase, a new equilibrium is established at which export industries can purchase their former quantities of sheltered and protected goods. Thus the volume of employment is restored and real income is not affected except by the disparity between export and import prices and the loss of overseas borrowing. At the new equilibrium absorption of the unemployed requires an increase in export production and in internal production competing with imports. This may be brought about, in part, by an increase in efficiency and, in part, by a fall in the standard of living. The problem confronting Australia is thus one of restoring a new equilibrium based upon (1) a proper balance between prices of the goods of the export industries and those of the protected and sheltered industries,[1] and (2) an increase in the volume of production for export or in competition with imports.

In my former article this process of adjustment was briefly discussed,[2] and the following suggestions were made as a means of achieving the desired result rapidly and with the least disturbance to the economic system: (*a*) real wages should be reduced by 10 per cent.; (*b*) an increase in the exchange rate to a discount of 20 per cent. should be made; (*c*) an easing of the credit situation by the purchase of Government securities through

[1] A reliable measure of the movements in export prices and prices of domestic goods is not available, but a comparison of the prices of farm products included in the wholesale price index-number shows that these have fallen by 35 per cent. since January 1929 compared with less than 20 per cent. for the index as a whole. This comparison greatly under-estimates the disparity.

[2] The ECONOMIC JOURNAL, December 1930, p. 647.

the Central Bank; (*d*) the balancing of the budgets through a reduction in Government expenditure and an increase in taxation; (*e*) some restoration of overseas borrowing to ease the burdens of the crisis.[1]

II

To a large extent the policy followed by Australia has been on these lines. In the first place the Commonwealth Arbitration Court reviewed the basic wage, and in February last ordered a reduction of 10 per cent. in real wages.[2] In addition to this decline in real wages there has been a reduction in the Commonwealth basic wage in accordance with the fall in the cost of living. The total reduction now amounts to 23 per cent. and is applied to practically the whole of the workers under Commonwealth awards, estimated to be about 20 per cent. of the total wage-earners. Wages boards in Victoria and Tasmania take as their standard the Commonwealth basic wage, and the reduction has, therefore, been applied to many additional workers in these two States. In all States, except New South Wales, substantial reductions have also taken place in the basic wage. In South Australia the wage has fallen from 14*s*. 3*d*. per day to 10*s*. 6*d*. per day, a fall of over 25 per cent. It will be conceded that this is a somewhat remarkable achievement for a country that had attempted by regulation to build up a high standard of living, and had set great store upon the maintenance of that standard. It will be interesting when the crisis is over to compare the wages policy of Australia with that of countries in which regulation under statute is much less extensive in its scope. In one State only has the wage-fixing tribunal not adjusted wage rates to the new conditions. The rates in force in New South Wales are those fixed at the end of 1929, and there seems little prospect of any alteration at the moment.[3] The result is a considerable disparity in wage rates. Thus the Federal basic wage in Sydney is £3 12*s*. 11*d*., while the State basic wage is £4 2*s*. 6*d*. for 44 hours.

[1] This programme is discussed in more detail, in Copland: *Credit and Currency Control* (Melbourne University Press), Chapter VI, and in an article on "The Restoration of Economic Equilibrium" in the *Economic Record*, November 1930.

[2] The judgment of the Court was the first official pronouncement that emphasised the severity of the crisis. It is reprinted in Shann and Copland: *Crisis in Australian Finance*, 1929–31 (Angus and Robertson), pp. 102–46.

[3] Recently the employers applied to the State Industrial Court for a review of the basic wage. As this is being written it is announced that the Government has appointed one of the three Judges of the Commission to the Supreme Court Bench, and the Commission will not be proceeding with the hearing. The trouble in N.S.W. is thus due in part to political interference with the normal process of wage-fixing.

New South Wales is the seat of the iron, steel and coal industries, and high costs in that State are a serious burden on all other States. As will be shown later, this is not the only respect in which the policy of the New South Wales Government is impeding the process of readjustment.

In the second place, exchange rates were rapidly revised in January, and finally fixed at 30 per cent. above parity for telegraphic transfers. There was an attempt to peg the rate at about 10 per cent. above parity, but in December the exchange market outside the banks became much more important than it had ever been, and the outside rate rose as high as 15 per cent. above parity. In the absence of overseas loans and high prices for exports, it was not possible to maintain parity of exchange with a substantial disparity between Australian prices and British prices.[1] Fear of inflation was increasing the demand for London funds, and an increase in the rate was inevitable, despite severe rationing of London credits by the banks. In the move to a higher exchange rate, the Bank of New South Wales gave the necessary lead, fixing its buying rate at £118 10s. per cent. at the beginning of the year. The rate was quickly moved to £130 per cent., and has since remained at this level.

In the third place, but only after acute political strife, the budgetary problem was boldly tackled in May. In all States some reductions of expenditure had been made, and, before the major adjustments were agreed to, the total reductions in adjustable expenditure (all expenditure except interest, exchange on overseas interest and unemployment relief) either accomplished or announced amounted to 11 per cent. Two of the States (South Australia and Western Australia) actually showed economies of 20 per cent. on this expenditure for 1931–32. In the absence of adequate action by the Commonwealth Government and by the Government of New South Wales, these efforts at economy were easily overlooked by critics of the Governments both inside Australia and outside. Moreover, the decline in national income and the fall in imports cut severely into revenue and increased the deficits to an alarming amount. One effort to review the position was made by a Committee of economists and under-Treasurers, appointed by the Loan Council to provide information for a Premiers' Conference at Canberra in February 1931. The deficits were then estimated at £15 m., and much valuable information on the financial position of the country

[1] On this point see comment in the article in the Economic Journal, December 1930, p. 642.

was available for the Conference.[1] Much emphasis at this time was being given by the Commonwealth Government, at the instance of the Treasurer, Hon. E. G. Theodore, to an expansion of credit, and apart from a resolution to reduce salaries and wages in the public service according to the fall in the cost of living, and to impose a flat rate income tax of 3s. 6d. in the £ on the interest of all Government loans, no definite action was taken to meet the position. Meanwhile, funds were being provided by the banks, and the total outstanding short-term indebtedness of the Governments to the Australian banks at the beginning of April was £51·5 m. On April 2nd the Chairman of the Commonwealth Bank wrote to the Commonwealth Treasurer advising him that the Commonwealth Bank could not allow its accommodation to the Government on Treasury Bills in Australia to reach a total of more than £25 m. At the time of writing the amount outstanding under this head was £16 m., and it was anticipated that the limit would be reached by June 30.[2] It should be added that Government borrowing is controlled by the Loan Council representative of all the Governments, and that the method of short-term finance arranged by the Loan Council was the issue of Treasury Bills.

The Commonwealth Government was at this time engaged in formulating a monetary policy designed, first, to control bank interest rates; secondly, to issue an additional £18 m. of notes for public works for the unemployed and relief for the farmers, and, thirdly, to amend the Commonwealth Bank Act in respect to the note issue, providing that (i) the notes should not be convertible into gold; (ii) that the Government might acquire gold from the bank for the discharge of the indebtedness of the Commonwealth in London, and (iii) for a maximum note issue of £60 m.[3] None of these measures was passed, the Senate refusing

[1] The Report of this Committee is to be found in Shann and Copland: *The Crisis in Australian Finance*, 1929–31, pp. 146–81. See also pp. 183–85 for the resolutions of the Conference.

[2] For this letter and the Treasurer's interesting reply attacking the banks for their policy in the crisis see Shann and Copland: *The Battle of the Plans* (Angus and Robertson), pp. 44–56.

[3] For a criticism of this policy see Shann and Copland: *The Battle of the Plans*, pp. 20–44. Not only was the ordinary note issue to be allowed to rise to £60 m. regardless of the gold reserve, but a new issue of £18 m. was to be made. Nothing was to be done to deal effectively with expenditure. The total savings in the Commonwealth budget would have been £2·3 m. out of an expenditure of £70 m. This was direct inflation, and the Government was quite candid in its admission that it hoped to raise prices by its policy. It was one side of the economists' plan, but very clumsily attempted; and there was no prospect of checking the inflation once initiated by the printing press.

to accept the Government's policy. At one stage it was thought that the Government would go to the country on this policy. The Loan Council had, however, at a meeting on April 25 resolved that "Australia must aim at securing a balanced budget by the end of June 1934." It set up a sub-committee with power to co-opt experts for the purpose of reporting on the whole position to the Loan Council before the end of May. It was not apparent at the time that this decision of the Loan Council marked the close of a stage of acute controversy concerning the action to be taken by Governments to deal with the situation.

III

A Committee of four economists and five Under-Treasurers was appointed in May to report to the Loan Council. It was from the report of this Committee, known as the Copland Report, that the Premiers' Conference and the Loan Council advised the plan of financial rehabilitation known as the Premiers' Plan.[1] The Copland Committee estimated the deficits for the year ending June 30, 1931, at £31 m. and the deficits for 1931–32 at £39 m., with a possible increase to £41 m. It was quite clear that drastic measures had to be taken to meet the position. In any case the limit to the issue of Treasury Bills by the Commonwealth Bank would have brought about a stoppage of payments early in the financial year. The Committee's proposals were briefly as follows:—(1) The Commonwealth basic wage had at that time fallen 20 per cent. from the 1928 level, and this percentage reduction was to be applied to all adjustable expenditure, amounting to approximately £120 m.[2] The total reduction was, therefore, £24 m. Of this, savings to the extent of £11 m. had already been made, and the reductions proposed would, therefore, reduce the deficit by £13 m. It was considered that this was the reasonable limit of possible economies at the moment. (2) The revenue was to be increased to the extent of £8 m. by increasing the sales tax from 2½ per cent. to 6 per cent., and the primage duty from 4 per cent. to 10 per cent., and by £4 m. through additional income tax in the Commonwealth and in Victoria and Western Australia. The deficit would, therefore, be reduced by

[1] For the report of the Committee of Experts and the Premiers' Plan see the Report of the Conference of Commonwealth and State Ministers, 25th May to 11th June, 1931 (Government Printer, Melbourne). See 5958.

[2] The non-adjustable expenditure (interest, sinking fund, exchange and unemployment relief) was £62 m. in 1929–30 and was estimated to be £85 m. for 1931–32.

economies and taxation from £39 m. to £14 m., and possibly £16 m. if revenue failed to reach expectations. (3) This was thought to be too large a deficit to be met from the ordinary process of economic recovery. The Committee suggested a net saving of at least £3 m. by reducing the interest on the internal debt by 15 per cent., bringing the deficit down to £11 m.

This proposed reduction in the interest burden on the internal debt is perhaps the most interesting feature of the Committee's Report. In justification of this proposal the Committee wrote as follows:—"Economies and increased taxes such as those outlined above involve as drastic cuts as can be borne by income-elements that are exposed to both cuts and taxes. Yet the gap still to be bridged remains a wide one. For two reasons, further measures to reduce it are necessary. The sacrifices asked from wages, salaries and pensions are so great that they would not be accepted if any other income-element escaped. Nor may the menace of currency collapse be ignored while the deficit to be met by borrowing remains so large." (Paragraph 36 of the Report.) At the time a special tax of 1*s*. 6*d*. in the £ on interest from fixed money claims was in force. It was thought undesirable to increase this tax because it would keep up the rate of interest, keep up costs and render conversion operations difficult. It was also thought inexpedient to attempt to manipulate the currency in order to raise the price level and thus extract from fixed incomes an adequate contribution to the loss of national income. "There can be little doubt that under present conditions such a policy would destroy confidence in the currency." (Paragraph 39 of the Report.) The Committee was, therefore, forced to consider a conversion of Government securities to a rate of interest approximately 15 per cent. below the then existing rates. Leaving the 1*s*. 6*d*. in the £ tax the contribution from the bond-holder would then be 22½ per cent. In so far as this involved a breach of contract, the Committee justified it on the grounds that: "In normal times breach of contract would constitute an insuperable objection, but, fundamental as is the sanctity of contracts, it must not be overlooked that insistence on their fulfilment to the letter might, in present circumstances, force the debtor Government into a policy that would surely destroy the value of the bond. Generally, breach of contract would cause lack of confidence, and would set up a flight of capital from the country subjecting investors to it. But when the alternatives are inflation and default, or taxation of an equal or probably greater severity, holders of fixed money claims may

find it wiser to accept a variation of their contracts which is less onerous than taxation and insures them against the greater loss of total default." (Paragraph 42.)

The savings affected by economies, by reduction in interest and by taxation recommended by the Copland Committee would amount to £28 m., leaving a deficit of £11 m. (or possibly £13 m.). It was thought that this deficit was "manageable," and would be reduced as recovery proceeded. The expenditure on unemployment relief in Australia is now at the rate of £10 m. per annum, and the added cost of exchange on the overseas debt nearly £11 m. A recovery in overseas prices would reduce unemployment, and also the exchange rate. There would also be some recovery in revenue, and the deficit would then be finally eliminated. It should be added that the Copland Committee referred to two other elements in the general problem of financial reconstruction. In the first place, it suggested that all salaries and wages should conform to the standard set by the reductions in the Commonwealth basic wage. Secondly, it recommended that the conversion operation should be accompanied by a simultaneous reduction on bank interest rates and mortgage rates.

It would be wrong to assume that the general policy embodied in the Report was one of deflation. Certainly substantial reductions in all payments were recommended, but two influences were left free to impose a salutary check upon the deflationary process. The exchange rate was to be maintained at 30 per cent. On this point it may be well to quote from the Report. "Regarding any funding operation in London, care should be exercised not to force a premature return to the old par of exchange between sterling and the Australian pound. Exchange parity may best be regained on rising markets for Australian exports. It would be premature if attempted sooner in that it would intensify the crisis in Australia by reducing export values once more." (Paragraph 50.) Secondly, there was still a substantial deficit to be financed by loans, though the Committee recommended that these loans should "come from current savings rather than from new bank credits." The very fact that savings were diverted into loans to maintain expenditure is in itself a check to the deflationary process in a period of acute depression. Generally speaking the Report was in conformity with the policy enunciated by Australian economists, embodying: (*a*) a high exchange rate, (*b*) an all-round reduction in Government expenditure and in costs of industry, (*c*) a reduction in the burden of fixed money claims, and (*d*) an easing of the banking situation to facilitate a

process of adjustment.[1] The novel feature of the Report was, however, the direct attack upon the interest problem. The case for a reduction in fixed money claims in a period of falling prices has a very sound basis in economic theory. But only a grave national emergency could justify any interference with existing contracts, and Australia could fairly claim that her position was such that drastic measures should be taken. Fixed money claims were estimated to be about £80 m., or 12·4 per cent. of the national income before the crisis. Making allowance for a substantial fall in the payments on mortgage interest, they would have amounted to £70 m. on the much lower national income of 1931–32, the ratio then being 15·3 per cent. Thus, at a time when the national income was falling heavily, the holders of fixed money claims were receiving a greater proportion of it. If a group of Commercial loans raised since 1925, aggregating £233 m., be taken it is found that the interest payable amounts to £12,972,000. If the cost of living at the date of flotation is compared with the cost of living in the first quarter of 1931, the purchasing power of this interest had risen to £14,536,000. This is a rise of 11 per cent. of real income at a time when all other income elements had suffered severely. Logically, those who clamour most for deflation in a crisis should be equally ready to support the argument for a reduction in interest rates.

IV

In the main the recommendations of the Copland Committee were accepted by the Premiers' Conference, though some modifications were made. The Conference did not tackle the problem of wages in private industry. The plan devised, however, embraces all the other suggestions embodied in the Report. This Plan, known as the Premiers' Plan, is officially summarised as follows :—

"The Conference has, therefore, adopted a plan which combines all possible remedies in such a way that the burden falls as equally as possible on everyone, and that no considerable section of the people is left in a privileged position. This sharing of the burden is necessary to make the load more tolerable; it is still more necessary, because only on this condition will it be possible to get the combined effort required.

[1] For the measures recommended by the economists see their statements of June 1930 and January 1931, published in Shann and Copland: *The Crisis in Australian Finance*, pp. 16 and 72.

"The Plan has been adopted by the Conference as a whole, each part of which is accepted on the understanding that all the other parts are equally and simultaneously put into operation. It embraces the following measures :—

"(*a*) A reduction of 20 per cent. in all adjustable Government expenditure, as compared with the year ending 30th June, 1930, including all emoluments, wages, salaries and pensions paid by the Governments, whether fixed by statute or otherwise, such reduction to be equitably effected;

"(*b*) Conversion of the internal debts of the Governments on the basis of a 22½ per cent. reduction of interest;

"(*c*) The securing of additional revenue by taxation, both Commonwealth and State;

"(*d*) A reduction of bank and Savings Bank rates of interest on deposits and advances;

"(*e*) Relief in respect of private mortgages." (Report of the Conference.)

The legislation required to implement the Plan consisted of the following :—

1. A Debt Conversion Agreement Act passed by the Commonwealth and by the States approving an agreement under Section 105A of the Commonwealth Constitution, between the States and the Commonwealth, relative to the conversion of the internal debt.[1]

2. An Act to provide for the conversion of the internal debts passed by the Commonwealth Government.

3. An Act passed by all Parliaments to empower trustees to convert their holding of the public debt into the new loan.

4. A Financial Emergency Bill embodying the reductions in Government expenditure, and in some cases also the reductions in private interest.

5. An increase in taxation in the Commonwealth raising the income tax, the primage duty and the sales tax to provide revenue amounting to £7,500,000.

The important features of this legislation are the terms of the conversion of the internal debt and the provisions for reducing private interest. With regard to the first, the total amount

[1] Section 105A was inserted in 1928 when the financial agreement was made between the States and the Commonwealth under which the Commonwealth took over the debts of the State. For an account of this see Copland: "Financial Relations of the States and the Commonwealth," ECONOMIC JOURNAL, December 1927.

involved was £556 m., on which the average rate of interest was £5 5*s*. 5*d*. per cent. at June 30, 1930. Under the conversion loan this rate will be reduced to an average of £4 1*s*. 8*d*. per cent., a reduction of 22½ per cent. This was arrived at by including the 15 per cent. recommended by the Copland Committee and replacing the tax of 18*d*. in the £ by a reduction of a further 7½ per cent. The gross savings in interest would be £6½ m. The conversion operation had another advantage. It was possible to rearrange the maturity dates of the internal debt. Holdings of the existing securities were to be allocated among new securities whose dates of maturity ranged from seven years in nine steps to thirty years. This would leave the local market free of conversion operations for seven years, and spread the conversions more conveniently over the remaining twenty-three years. The Act provided that unless dissent was signified, conversion would be automatic. Bond-holders were appealed to on the double ground of the financial difficulties of the Governments and on the need for sacrifice from every section of the community. The result was remarkable. No less than 97 per cent. of the total holdings were converted into the new loan, leaving only £17·5 m. unconverted.[1]

With regard to the private interest, legislation was to be passed in the six States providing for a reduction of 22½ per cent. on existing contracts. No attempt was to be made to control the future rate of interest, and it was left open to the States to legislate on their own plan. Legislation has now been passed, and four of the States (New South Wales, Victoria, Western Australia and Tasmania) have proceeded by way of automatic reduction, unless the mortgagee can satisfy a tribunal that the reduction is inequitable. In the other two States the mortgagor must apply for a reduction. Rates are to be reduced by 22½ per cent. with a minimum in most cases of 5 per cent. For the most part bank rates are omitted from the plan, inasmuch as the banks had already agreed to a reduction of 1 per cent. all round in their deposit rates and advances rates, though some bankers were opposed to taking this step so soon.[2]

[1] It was assumed at the original Conference that a tax of at least 22½ per cent. would be imposed upon interest on the unconverted bonds. The small amount left, however, has influenced the Government to proceed direct with a compulsory conversion of the unconverted amount. Whether this proposal will be agreed to by the Senate is not yet clear.

[2] For a discussion of the effects of a reduction in bank rates on Australia, see paper by Mr. A. C. Davidson, General Manager of the Bank of New South Wales, published in Shann and Copland: *The Battle of the Plans*, pp. 57–71.

For the rest, the legislation proceeded roughly according to the Plan, and the Governments met again in conference early in September to report the progress made towards budget equilibrium and to discuss with the banks measures required to finance Government deficits and public works. A Committee of under-Treasurers examined the budget position and found that the Commonwealth and four of the States had brought their expenditure down by the amount required. The estimated reductions for 1931–32 compared with 1929–30 were as follows:—

	Cth.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.
	Ordinary Expenditure.[1] (£ m.)						
1929–30 .	21·36	36·91	18·86			6·66	1·61
1931–32 .	16·88	31·96	13·46	9·02	5·19	4·84	1·26
Reduction Amount .	4·48	4·95	5·40	2·03	1·83	1·82	0·35
Percentage	21%	13%	29%	18%	26%		21%

[1] This includes administration and general and business undertakings. If roads are also included, the reduction for New South Wales rises to 16 per cent., and for South Australia to 30 per cent.

The deficits disclosed in the budgets as compared with those agreed upon in the Premiers' Plan are given in the following table:—

	Conference Deficits.	Budget Deficits.	Increased Deficits.
	£ m.	£ m.	£ m.
Commonwealth .	4·38	5·17	+ 0·79
New South Wales .	5·41	6·70[2]	+ 1·29
Victoria . .	1·31	0·82	– 0·49 Decr
Queensland . .	0·76	1·87	+ 1·11
South Australia .	1·50	2·12	+ 0·62
West Australia .	1·20	1·21	+ 0·01
Tasmania . .	0·09	0·23	+ 0·14
Total States	10·27	12·95	+ 2·68
Grand Total	14·65	18·12	+ 3·47

[2] Omitting £1·67 m. interest in respect of 1930–31.

The increase of £3·5 m. was due (i) to revenue falling short of the estimates at the May–June Conference, (ii) to the full benefit of reduced interest on the internal conversion not being secured in 1931–32, and (iii) to the economics agreed upon at the conference not being fully realised. It will be clear from the tables

that New South Wales is in much worse case than any of the other States, though by including as a reduction the shilling in the pound unemployment relief tax in that State and other economies yet to be made, the Government claims it has reduced its adjustable expenditure by 20 per cent. Thus it is fulfilling the letter of the Plan, but it may well be doubted whether a deficit of even £5·4 m. as agreed upon in the Plan will be liquidated under any probable conditions of economic recovery. Compared with the other States except Queensland, New South Wales has not made sufficient adjustment in Government expenditure in view of the severe fall in national income in that State. Had the other Governments pursued the same policy as New South Wales, it would have been evident that the deficits were not reduced to manageable amounts, and a further adjustment would have been called for. Similarly, it would have been difficult to continue to finance public works if the wages policy of New South Wales had been in force in other States. The general problem of unemployment was reviewed for the September Conference by a Secretariat, and attention was drawn to the disparity of wage rates in the States. Thus the report stated, "The wage reduction in most industries fails to lower costs sufficiently to increase employment because of the high wages still paid in other industries—such as coal or iron—on which they depend." As a long-range policy for solving unemployment the Secretariat recognised that a reduction of costs was essential. For the immediate future, however, it recommended :

(i) that the present loan works should be completed, involving an expenditure this year of £8·5 m.;

(ii) that £4 m. should be made available to stimulate development of paper pulp, gold-mining and fisheries and to improve the capital equipment on farms, and

(iii) that £3 m. should be available for a subsidy to wheat farmers on the next season's crop.

This was a loan programme of £15 m., compared with £45 m. before the crisis. With deficits at £18 m., the total assistance required from the money market for the current year would, therefore, be £33 m.

V

The provision of funds for the deficits and for loan expenditure was taken up with the banks, which agreed to make available £16 m. for deficits for the current year, £3 m. for providing a

wheat bounty and £4·25 m. to finance the continuance of existing public works up to December 31, when the position will again be reviewed. It would appear, therefore, that the floating debt of the Governments to the Banks will be increased by not less than £27·5 m. for the current year, bringing it up to a total of nearly £90 m. In the early stages of the depression there was a decline in the cash reserves of the banks and an increase in the ratio of advances to deposits. Thus from the first quarter of 1929 to the first quarter of 1930 the ratio of cash reserves to deposits fell from 19 per cent. to 15·5 per cent. and reached a minimum at 14 per cent. in the third quarter of 1930. The proportion of advances to deposits rose from 90 per cent. in the first quarter of 1929 to 104 per cent. in the first quarter of 1930. From the second quarter of 1930 to the second quarter of 1931, the proportion of cash to deposits rose from 14 per cent. to 20 per cent. and the proportion of advances to deposits fell from 105 per cent. to 98 per cent. The increase in the cash ratio is the direct outcome of the increase in central bank credit brought about by the financing of Government deficits through the Commonwealth Bank. This has greatly increased the balances of the Commonwealth Bank, due to the other banks, the amount standing at over £30 m. in the second quarter of 1931, compared with less than £10 m. in the second quarter of 1929. Deposits began to fall after the first quarter of 1929, when they amounted to £289 m. In June of this year they had fallen to £261 m., but fixed deposits had actually increased and the ratio of fixed to total deposits rose from 62·4 per cent. in June 1929 to 69 per cent. in June 1931. The main features of the banking position are thus :—

(i) a substantial rise in the ratio of cash to deposits;
(ii) an increase in the liability for interest on fixed deposits;
(iii) a heavy fall in current deposits;
(iv) an improving though still high ratio of advances to deposits.

These movements in banking are precisely what would be expected at a time when Central Bank credit is being increased to meet the needs of Governments. There has been a considerable easing of the banking position, and the need for drastic deflation of advances is much less insistent than it was earlier in the crisis. The maintenance of a high exchange rate and the expansion of credit to finance Government deficits and maintain some loan expenditure provide a neat balance of forces against

the reductions in spending power brought about by the reductions in wages, Government payments and interest. Despite this tonic of credit expansion the disturbances of the process of adjustment have been great and unemployment has steadily risen from 18·5 per cent. in the June quarter of 1930 to 27·6 per cent. in the June quarter of 1931.

VI

The existence of this volume of unemployment, the continued depression of prices on the Stock Exchange, the fall in the price of Government bonds, which still stand at a discount of about 16 per cent., and the very depressed condition of the external markets for Australian exports have not allowed the general plan of financial rehabilitation to bear fruit as yet. Indeed, despite the magnitude of the effort, grave doubts were entertained concerning the possibility of Australia being able to meet from her current sources the interest on her external debt. For 1930–31 total exports amounted to £88 m. and imports to £60 m., leaving a surplus of £28 m. The payment of interest to the sinking fund and all other charges overseas amounted to £30 m. for that year, and there was an apparent deficit of £2 m. on the London account. Despite this the floating debt in London has been reduced from £18 m. to £5 m., and the balance must have been met from the use of credits in London or the piling up of funds in Australia awaiting remittance. The exports for last year included £13 m. of gold, but as the gold reserve is now reduced to £10 m., it is not likely that any will be available for export this year.[1] Estimated exports of merchandise for the current year, in spite of excellent seasonal prospects, are less than £75 m. The suspension of the gold standard by England and a depreciation of the sterling dollar exchange by 15 per cent. would raise this estimate to £86 m. Imports are now coming in at the rate of about £45 m. per annum. Of this sum approximately £25 m. comes from countries other than Great Britain, and the cost of these in sterling would also be raised by 15 per cent. Similarly, the cost of interest on the American debt amounting to about £2·5 m. would be raised by about 15 per cent. The net increase in commitments on account of the depreciation of sterling would, therefore, be approximately £4 m. to be set off against a gain of £11 m. With exports at

[1] The Commonwealth Bank Act was amended in June by reducing the ratio of gold to notes from 25 per cent. to 15 per cent. The former ratio has to be restored within three years. The Act was amended to promote the export of £5 m. in gold to pay off Treasury Bills. At present the note issue is £50 m.

£75 m. and imports at £45 m. there would have been a balance of £30 m. This may be raised to £37 m., should the depreciation of sterling be 15 per cent. Naturally these estimates are to some extent conjecture. Seasonal prospects may not be realised, gold prices for exports may increase, and the imports may be under-estimated. Before the crisis they amounted to £140 m., and it would be remarkable if any measure of recovery could be achieved with imports at only £45 m. The suspension of war debts and reparations has given Australia a net relief of approximately £5 m., 15 per cent. of her overseas obligations, and if this is continued and sterling is stabilised at 15 per cent. discount, it may be possible for Australia to meet her commitments from current resources. The depreciation of sterling is, of course, a substantial help, but it must be remembered that the banking position of Australia in London has deteriorated greatly on account of the depression. Thus it has been estimated that the London balances of the trading banks fell from £30 m. in the middle of 1929 to £10 m. in the middle of 1931.[1] It will be necessary for Australia to build up her reserves in London, and she can only do this by maintaining a surplus of exports over imports greater than her current commitments. Whether she can do this from her own resources is still a matter for speculation. It would, however, be a serious reversal if in spite of the efforts she has been making she were unable to meet current commitments because international commodity prices continued to move against her. No doubt further internal adjustments can be made. In particular the tariff has to be scaled down, the basic wage and the budgetary position in New South Wales adjusted, and greater freedom of working conditions in industry be achieved. But it is doubtful whether any other country has made adjustments of the same magnitude as Australia. In these circumstances it is legitimate to consider that the continuance of depression is due to conditions over which Australia has little or no control.

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University of Melbourne,
October 1931.

[1] K. S. Isles: "Australian Monetary Policy," *Economic Record*, May 1931.

THE WORLD'S WHEAT SITUATION [1]

In his Presidential Address to the British Association in 1898, Sir William Crookes predicted that in 1931 the world was likely to be short of wheat. In reality, 1931 has been a year in which the world has been engaged in disposing of the largest wheat crop ever harvested, in which stocks have risen to record figures, in which prices have fallen to the lowest level for which there are modern records, and in which growers over vast areas of wheat land have found that their returns do not cover the cost of production.

It is true that Crookes' forecast was subject to certain reservations. The impending wheat famine might be averted through the agency of the chemical laboratory. If the chemist were to solve that—as yet—unsolved problem of the fixation of atmospheric nitrogen, so that nitrogenous fertilisers could be manufactured on a commercial scale, the yield of wheat per acre could be raised and the world carry on a little longer on its limited wheat area.

The fixation of nitrogen is now an accomplished fact, and the increased yield which has resulted from this and other changes has contributed something, though not very much, to the vast increase in wheat production which has occurred in the last thirty years. The average wheat yield in countries for which there were statistics at the time Crookes gave his address was estimated at 12·7 bushels per acre. In the past seven years it has averaged 14·1 bushels, an increase of approximately 11 per cent. But the total world's production has increased in these thirty years by over 60 per cent. It is not so much to the chemist as to the biologist and the agricultural engineer that we owe the means of effecting this expansion; to them are primarily due the technical advances which have made possible the extension of the world wheat area into regions previously regarded as unsuitable or incapable of growing wheat commercially.

The chief factor in the upward trend in production since pre-war days has been the expansion of acreage. If we take the average of 1909–13 as the base, then for the years 1927–30, world production, excluding China and Russia, expanded by

[1] Read before Section F, British Association, London, 1931.

21·5 per cent. and acreage by 22·7 per cent. Of the total expansion in the world's wheat area, by far the greater proportion was contributed by the four overseas countries, the U.S.A., Canada, the Argentine and Australia. The world's area in 1930 had increased above the pre-war base by 51 million acres, of which 44 million acres were in these four countries. The European acreage, excluding Russia, after falling sharply had recovered approximately to the same level as in the pre-war years.

Still more striking is the change in international trade. For the years 1909–13 the above four overseas countries supplied approximately 50 per cent. of the world's exports, while Russia and the Danube countries supplied about 40 per cent.; for the years 1924–28, the share of the four overseas countries had risen to about 94 per cent., while that of Russia and the Danube had fallen to about 5 per cent.

So violent a disturbance to the normal growth in production and trade could hardly fail to have attached to the post-war wheat situation a certain instability. Some readjustments were inevitable. Areas had been brought under wheat, particularly in the United States, which were only profitable with the inflated prices of the War and immediate post-war period, and disappeared with the subsequent deflation. But more important still was the position of Russia. The profound internal dislocation of Russia after the Revolution has delayed the recovery of her wheat production and has kept her almost completely off the export markets for twelve years from the end of the War. Partly for this reason the situation has perhaps assumed an appearance of greater stability than it actually possessed. Indeed, a practice has grown up during the past decade, due to some extent to the lack of accurate statistical material relating to Russia, of measuring the world's wheat situation excluding Russia—as though Russia were off the map. In reality Russia was recovering, though her recovery did not materially affect the world's situation until her reappearance as an exporter at the end of 1930.

Since 1920 the trend of wheat prices has been downwards, interrupted by a sharp rise in 1924. The general form of the curve representing the movement of wheat prices in this country is similar to that representing the movement of an index of wholesale prices, but with the conspicuous changes more exaggerated. It should be noted in passing, however, that the level of wheat prices at the beginning of 1930, in relation to the level of wholesale commodity prices in this country, was no lower than at the beginning of 1922.

The deviations in the course of wheat prices from that of wholesale prices are perhaps of more interest than the actual course of prices. If we calculate an index representing the value of wheat expressed in terms of wholesale commodities, and plot the result diagrammatically, the curve shows two conspicuous periods in which wheat prices were falling rapidly in relation to the prices of wholesale commodities, namely, from the beginning of 1921 to the end of 1923, and from the beginning of 1930 onwards. Both were periods of industrial depression, although towards the end of each exceptionally large harvests were factors in increasing the fall, and in the latter heavy stocks carried forward from the previous years exerted a depressing influence on prices. From 1925 to the harvest of 1928 the trend of wheat prices was slowly downwards in relation to wholesale commodities, with a sharper fall following the bumper crop of the latter year.

The disastrous fall in the price of wheat [1] occurred, however, not in the crop year 1928–29, but in 1929–30. It began about January 1930, and reached in the spring of 1931 a point almost as low as in 1894, the lowest point in the nineteenth century. To analyse in detail the causes which brought this about would be far beyond the scope of this paper, but it is worth while to refer briefly to the factor to which it has most frequently been attributed, namely, general over-expansion of production.

At international discussions of the agricultural situation and elsewhere, the fall in wheat prices has been repeatedly regarded as if it were exclusively the result of this cause. The last decade has been spoken of as a period of growing over-production, culminating in the disastrous fall in prices of the last two years. I do not think, however, that it is possible to account for the recent behaviour of wheat prices solely by reference to the supply position.

Firstly, as to the post-war period as a whole. What has actually been the trend of production? The difficulty of comparing the post-war and pre-war periods is greatly complicated by the violent disturbances which occurred both in production and consumption, in Russia, during and after the War; but by taking the total supplies available to the world outside Russia, that is to say, the production of other countries plus Russian exports, it is possible to compare the rate of growth of wheat supplies in the two periods. On this basis, for the years

[1] Measured by a weighted index of the declared values of the various wheats imported into this country.

1890–1913 the trend showed an increase of approximately 53 million bushels per annum. What was the position after the War? Notwithstanding the great increase in production in over-seas countries already described, world supplies, excluding Russia, have not in *any* post-war year reached a point as high as the line of pre-war trend projected into the post-war period. In the years 1919–22 they fell considerably below it. Trend alone considered, the really striking feature of this comparison is not the expansion of production after the War, but the sudden *set-back* to production caused by the War. This is not, of course, to deny that production in the post-war period has outrun demand, but, having regard to the course of prices, it suggests that the chief effect of the War was to bring about a profound disturbance in the normal growth of *demand*. What lies behind this disturbance I cannot here discuss.

Secondly, when we come to the critical crop year of 1929–30, in which the catastrophic fall in wheat prices began, the position is similar. The world's crop was actually *smaller* than that of the previous year by approximately 12·8 per cent. There was, in fact, a repetition of what occurred in 1924, when the world's harvest fell by 11·5 per cent., but while the former was followed by a sharp rise in prices, the latter led to a severe fall. It is true that the record harvest of 1928 temporarily increased supplies above the normal and led to heavy stocks being carried forward to the following year. But in spite of the accumulated stocks the total supplies available in the 1929–30 crop year, that is to say, the total world production outside Russia plus the carry-over from the previous year, was substantially smaller than in the 1928–29 crop year. Exceptional abundance alone cannot, therefore, be held to account for the lower level of wheat prices in 1929–30 or for the very rapid fall in prices from January to September 1930. This was roughly the position up to the autumn of last year. During these years Russia as a factor in determining the international level of wheat prices was of negligible importance.

But with her reappearance as an exporter in September 1930 the situation underwent an extremely important change. Indeed, the position of Russia is so important that it calls for special comment. Her production during the last seven years has expanded very rapidly indeed. In the main, however, it has been a recovery from an extremely low level reached after the Revolution, and until recently the increased output has been almost entirely absorbed within the country. But by 1930

Russia had not only more than restored her pre-war acreage, but, if the official crop estimates of the Soviet Union correctly represents the facts, she harvested a crop which was greater by about 381 million bushels than that of the previous year, an increase in one year nearly equal to the entire Canadian crop of 1930. At this point she was once more in a position to claim a share in the world's exports, and in the course of the year she exported something over 100 million bushels, or about two-thirds of her pre-war average exports. Thus the world outside Russia, already faced with supplies substantially in excess of the effective demand, now had to meet an absolute addition to these supplies, and for the time at least a sharp upward turn in trend of total world supplies available for export.

Such are the main facts in regard to the volume of supplies. Other factors which have had a bearing upon the fall in prices, to some of which I refer later on, are the restrictive policies pursued in regard to imports by the great majority of importing countries on the Continent of Europe; the movement in the prices of rye [1] and maize; variation in the milling quality of successive wheat crops; the influence upon the market of the heavy stocks; the policies of the Canadian Pools, and still more important of the Federal Farm Board of the U.S.A. It is perhaps impossible completely to disentangle the causes of a situation so exceedingly complex as this is. I think, however, that the correct inference from the facts is that an actual decline in consumption has played a much more important part in the fall in wheat prices than has commonly been supposed, particularly during the spread of the economic depression since the beginning of 1930. If statistics of consumption were more adequate and more reliable it might be possible to obtain corroborative evidence on this point, but as it is this conclusion must be mainly an inference from other facts.

I wish now to turn to some of the long-term factors which have a bearing on the situation.

The seventy years before the War saw great developments, not only in the exploitation of virgin lands and in the improvement of transport, but in the adoption of early maturing and drought-resisting varieties of wheat, and the use of new implements. But the post-war period has been marked perhaps by even

[1] In the years 1928–30, Europe—ex Russia—harvested exceptionally large crops of rye, averaging for these years about 22 per cent. above the average of 1922 to 1924.

more revolutionary changes in the technique of crop production than any that occurred in the past century. These are partly due to changes in cultural practices, but mainly to the spread of mechanisation in the great wheat-producing countries overseas. The subject of mechanisation in agriculture has led to some very strong statements both in regard to the part it has played in the present depression and to the influence it is likely to exert in the future. For example, Dr. W. I. King, in the *American Journal of Farm Economics*, asserted that—

> "The gasolene engine has been the most important influence tending to keep the price of farm products low as compared with urban products, and hence lower the farmer's income, and to lead to that cityward migration of farmers which has been taking place."

Or, again, G. A. Studensky, in the same Journal, states—

> "At the bottom of the approaching agricultural crisis is an immense technical revolution brought about by the internal combustion engine. The importance of this revolution for the future of agriculture defies imagination."

Whatever may be the truth in regard to these statements, there can be no doubt that the advent of the tractor and the combined harvester-thresher opened a new epoch in the technique of crop production, the possibilities of which have hardly yet been realised.

Some idea of the growth of mechanisation may be obtained from the following figures. The United States manufactured about 60,000 tractors in 1917; in 1929 her production had risen to approximately 229,000. Her production of the combined harvester-thresher rose from a total of 270 in 1914 to nearly 37,000 in 1929. According to official estimates the number of combines in use in Western Canada in 1924 was only 5, while in 1929 it was about 7,250. Figures for the Argentine and Australia show a similar increase.

Now the chief direct consequence of the application of mechanical power to the farm has been a general raising of the speed of farm operations, a gradual increase in productivity per man employed, with a consequent reduction in the number employed per 1,000 acres. For example, the progressive reduction in the number of hours of labour required for harvesting and threshing resulting from the sequence of new mechanical inventions is

illustrated by the following quotation from the American authority, R. H. Tolley :—

> "When wheat was harvested with the sickle and threshed with the flail, from thirty-five to fifty hours of labour were necessary for harvesting and threshing an acre of wheat with a yield of fifteen bushels. The introduction of the cradle effected a saving of about ten hours per acre. At present, farmers in the Great Plains usually use from four to five hours of labour for harvesting and threshing an acre of wheat when it is harvested with a binder and threshed from the shock with a stationary thresher: from three to four hours' of labour when the crop is harvested with the header and threshed with a stationary thresher; and an average of three-quarters of an hour of labour when the combined harvester-thresher is used."

I think, however, even more important than the trend exhibited in those figures is the profound change introduced into farm practice. Harvest time through all the ages has been the busiest season in grain farming. Traditionally it has imposed the greatest strain on the available labour staff. The organisation of the farm, the number of draught animals, the number of implements and, to some extent, the area which could be sown with grain, have therefore all been determined with reference to harvest time. In the United States and Canada, moreover, harvest needs have been met by withdrawing from the cities for harvesting purposes what has been described as "an enormous fringe of casual labour, leaving it to disperse itself as best it might when the harvest is over." Harvest "excursions" run from the big cities have been a conspicuous feature of the Canadian summer, but the cost of harvest labour has been relatively high, namely from five to seven dollars per day. Now the effect of the introduction of the tractor and combine has been to smooth out this traditional "peak" in the labour curve. It has "decasualised" the harvest, and enabled the farmer with his small permanent labour staff to deal without difficulty with the heavy work at that season.

The indirect consequences of this, and of the general spread of "power farming," are exceedingly important. Firstly, it has promoted the movement towards larger farms which is now conspicuous in the wheat-growing regions of the United States and Canada; secondly, and still more important, it has helped to bring about the extension of farming, particularly in the

United States and Australia, into areas of low *yield*, with rainfall as low as ten inches, so bringing under cultivation vast regions hitherto regarded as unprofitable. In the words of the United States Secretary of Agriculture, "mechanisation is changing the wheat map of the United States." Thirdly, by applying mechanical power not merely to the operation of harvesting but to those of ploughing and sowing, it has substantially raised the productivity per man, and lowered the over-all costs of producing the crop. To take two extreme instances as illustrations, it is claimed that the costs of wheat production in Kansas State have been reduced as low as 50 cents. a bushel; while, according to the U.S. Secretary for Agriculture, by substituting a cultivator drawn by a tractor, for a plough, as much as 1,600 acres can be cultivated by one man. Such results a few years ago would have been regarded with incredulity. Speaking generally of the United States, the output per agricultural worker is stated to have increased during the decade following the War by an average of 25 per cent. During this time, however, more than 3,000,000 people have left the land.

Now what is the expectation in regard to the consequences of these truly revolutionary changes upon the world's wheat situation? The demand for wheat is relatively inelastic, and the increased output resulting from lower costs cannot be readily absorbed by a corresponding increase in consumption, as would be the case with a product for which there is a more elastic demand. In a time when the population of wheat-eating countries is expanding more slowly than in the days of the rapid development of new wheat-fields in the nineteenth century, technical advances of the magnitude of those I have described seem to me to carry with them the implication, other things being equal, of a continuous tendency towards over-production; of a continuous pressure of wheat on the world's markets as an inevitable accompaniment of the spread of the new technique. Furthermore, there are indirect consequences of the use of mechanical power which increase this expectation. The adoption of the tractor on the farm and the automobile on the farm and in the towns has led to a reduction in the number of horses, and therefore to a decline in the acres of crop land required to feed them. In the United States it is estimated that no less than 25,000,000 acres of crop land, previously required to provide feed for horses, have been released since 1918, and made available for crops for human consumption. I conclude, therefore, that in the absence of some unexpected influence, the spread of mechanisation

establishes the expectation over a long period, of a continuous struggle, possibly a painful struggle, between regions where the new technique is penetrating and costs are low, and regions where the old technique survives and costs are high. It implies, while it lasts, a relatively low level of wheat prices (other things being equal), and ultimately it can be solved, it seems to me, only by the gradual elimination of the weaker producing units.

These technical changes in overseas countries are no doubt partly due to the nature of the soil and climate, partly also to economic conditions. In Australia and Canada, for example, the farmer's mind has constantly been bent towards the problem of economising human labour, because human labour has been scarce and expensive. But these are not the only factors. The United States, more strikingly perhaps than other countries, presents a contrast in aim and in the directive forces which govern their agricultural policy. Nothing is more noticeable than this if one visits American agricultural institutions or hears the views of American agriculturists.

The American believes that progress comes from new inventions, new technique, new organisation; from new discoveries which raise the general tempo of all productive operations. He believes in a rising standard of life springing directly from these progressive elements in the nation's economic system. Unhampered by tradition, he has been prepared to apply to agriculture the ideas which in other fields have contributed to the rapid rise in productivity per unit of the population. Indeed agricultural progress is constantly spoken of by reference to this measure, and the vast State organisation of agricultural research and education is directed towards this objective. If the American agriculturist has a passing regret for the migration of the population from the country to the towns, that is seldom uppermost in his mind. It is at least compensated for by the increasing standard of living of the farmer and agricultural labourer. Mechanisation in agriculture is the logical outcome of this spirit. I do not suggest that this characteristic attitude of mind is the only or even the primary cause of the rationalisation in agriculture which is taking place so rapidly in the United States. The ordinary forces of competition supply the strongest motive for the adoption of each successive labour-saving device. But it creates an atmosphere in which fewer obstacles are placed in the way of the process of rationalisation than in other countries where other motives and other ideals predominate.

When we turn to Europe we see a completely altered picture.

No longer do we find the urgent progressive spirit, but rather a technical conservatism always retarding the adoption of new methods. We see also, perhaps, how deeply rooted, how far from a superficial dissimilarity in farm practice, are some of the factors which create the contrast between the New and the Old World. Agriculture over the greater part of Europe is founded on a tradition of the peasantry; technical practices slowly evolved out of age-long custom belonging to that tradition, and it is a tradition which few European statesmen are willing to sacrifice. Small farms, intensively cultivated; a very high expenditure of human labour and little use of machines; peasant occupiers characterised by a thriftiness which is part of their traditional way of life; who make a little go a long way so far as their family needs are concerned; who follow with plodding routine their customary methods of cultivation; who not unnaturally are slow to adopt a new technique, still less prepared for a radical reshaping of their agricultural system or the amalgamation of small and uneconomic holdings. These are the characteristics of the European countries whose agriculture rests mainly upon the peasant type. But the peasant's dislike of change, common to the peasantry throughout Europe, is not the only deterrent to technical progress. In France, for example, the national value of the peasantry is intensely believed in.[1] It is believed that the strength and manhood of France, her vitality no less than her military power, depend ultimately upon the peasantry. To preserve the peasantry is a national need: the rural exodus is regarded as something to be avoided, even at substantial sacrifice. France would no longer be France if her economic life became predominantly industrial or her agriculture predominantly mechanised. For example, M. Laribé, a well-known commentator on French agriculture, says:

> "We may set down one first principle. Industrial development ought not with us to be pursued at the expense of agriculture. We have always been an agricultural country. We ought not to attempt to become a country essentially industrial. All the productive forces, all the natural dispositions so numerous and varied of France, would be difficult to use if accidental or temporary circumstances were allowed to lead us into one profession to the

[1] An illuminating account of the Agricultural Policy of France is contained in articles by Professor Rexford Tugwell of Columbia University, the *Political Science Quarterly*, Vol. XLV, from which the following two quotations have been extracted.

exclusion of others. Our future and our tradition alike demand that we furnish to the world the example of a wise and harmonious balance. To ruin the culture of the soil for the purpose of making France over into an industrial nation—that would be folly."

Rooted in these traditions, with policy governed by considerations of over-riding national aims, the technical evolution of agriculture naturally takes a different course. Technical progress does not receive the stimulus which is applied to it in countries unfettered by such considerations as these. To quote Professor Tugwell:

> "As new knowledge is made available and new processes are developed there cannot be complete immunity. But what is new is not welcomed; there is hesitation and scrutiny to discover whether what is suggested can be made to fit into the old scheme without great disturbance; it must be assimilated. So, for instance, the co-operative movement has grown into the rural economy slowly. It has made no obvious surface differences which are apparent to the eye. And so evolution in the types of cultures used has come slowly; cereals have decreased in acreage, but not so rapidly as to threaten a shortage of domestic supplies for bread. Even now it is only in poor wheat years that resort is had to importation; for the rise in yield per hectare has kept the total size of the crops constant—or nearly so, with normal variations. . . . The peasant home and the land are thought of as something to be worked for and preserved, ends in themselves rather than instruments by which to rise to a higher estate in the world; . . . one who fails to see this cannot possibly understand the tendencies of French policy. . . ."

Elsewhere in Europe the same spirit prevails, though the practical expression of it may be different. Switzerland, Germany, Austria, Poland and the agrarian States of Eastern Europe each has its peasant tradition. In most the rural exodus, so often a subject of comment, is regarded, if not as calamitous, at least as a movement which it is the legitimate aim of public policy to prevent. In the majority of European countries a drastic rationalisation of farming, a remodelling of farms, an enlargement of fields and a re-equipment with modern labour-saving machinery, which would enable them to compete on more equal terms with the produce from overseas, even if the absorp-

tion of the displaced labour in other occupations were possible, would be so alien to this spirit that it would meet not merely with the inevitable opposition of the peasants themselves, but with disapproval from those responsible for national policy.

Now the economic consequences of this cannot fail to be far-reaching. Europe remains the great market for the world's surplus wheat, but she also remains one of the great wheat-producing regions. What has just been said seems, therefore, to imply a continued struggle during the coming decades between European producers and those of overseas countries for their share in the European market, a struggle which is not new, but is certainly more intense, and one which, although superficially a competition between an older and a more advanced technique, in reality assumes the character it does because of wide—indeed fundamental—differences in national sentiment and national traditions. Russia alone of European countries has thrown the whole peasant tradition overboard and is seeking to carry out a rationalisation of agriculture at a speed not attempted by any other country in the world.

What has been the reply of the rest of Europe to the mechanisation of agriculture in the new countries? Confronted with the growing pressure of wheat from overseas, it has resorted during the post-war years increasingly to protection. Germany has raised her duties on wheat or wheat flour nine times since 1924; France six times; Italy five times; while imports into all the other importing countries of Continental Europe (except Denmark) are subject to some form of restriction. France, Germany, Sweden, Holland, Norway, Switzerland and Italy have all taken measures to enforce the compulsory milling of a fixed quota of home-grown wheat. Belgium and Portugal permit the importation of wheat under licence; Norway has a State monopoly. So drastic has been the protective policy in France and Germany during the recent slump of wheat prices in the chief wheat markets of the world, that domestic prices in these countries have actually risen, ultimately reaching a level more than double the corresponding figure in this country. The actual figures for last June were:

	s.	*d.*	
Great Britain	3	2½	per bushel
Paris	8	3½	,, ,,
Berlin	7	3	,, ,,

It seems clear that the European deficit countries can continue to protect their peasant agriculture and maintain their

production by means of tariffs and other protective measures so long as their consuming public is prepared to put up with the higher price of bread. But their action has introduced an unusual degree of artificiality into the present wheat situation, and has also tended to concentrate the full pressure of the world's surplus upon Great Britain, the one great free market of the world.

In the light of what has occurred it is hardly to be wondered at that, apart from Great Britain, the agricultural depression has been felt with great severity in the surplus-producing countries of the Danube basin. Here the spirit and tradition of the peasantry is no less strong, but the high hopes built upon the agrarian reforms which have been introduced since the War have proved to a large extent illusory in the face of falling prices, while the destruction of the big estates and their subdivision into small-holdings, has almost certainly increased the technical difficulties of competing with the cheap wheat from mechanised farms overseas.

Before ending, I must refer briefly to two other matters of importance bearing upon the present position. To the artificiality created by the policy of controlling imports in importing countries, there is a counterpart in the attempts to control exports and domestic sales in Canada and the United States.

I have not time to discuss here the policy during the last few years of the Wheat Pool and the Federal Farm Board, though they provide an exceedingly interesting study. Both have existed with the primary object of improving the price which their farmers receive for their wheat, both have aimed at orderly marketing, both at the stabilisation of prices, both have expressly sought to "eliminate speculation" though both have engaged in it. Now since these organisations have no control over production, their chief means of influencing prices lies in their powers to hold wheat off the market. In consequence of this they have been subject to severe criticism. In regard to the Pool, although the directors deny ever having followed a holding policy, my own view, the reasons for which would take too long to set out here, is that there is some substance in the criticism that at times the Pool has pursued what amounts to a holding policy, when to sell more freely would have been the wiser course, but I think its policy has contributed very much less to the creation of an artificial and unhealthy situation in the world as a whole than its critics allege. As to the Farm Board there is no doubt whatever about their policy of holding. Their so-called "price

influencing" measures have been much more ambitious than anything attempted by the Pool. The policy of the Farm Board has been, roughly speaking, to support domestic wheat prices, by purchases of wheat or otherwise, when they considered that the price at which it was selling was too low. In so doing they acted as they were bound to act, mainly on their judgment of the statistical position of wheat. But price forecasts based on this position, in the economic conditions which prevailed from the autumn of 1929 onwards, were, to say the least of it, exceedingly difficult to make. In actual fact the Board entered the market three times either directly or through its subsidiaries, and on each occasion apparently with the belief that the low prices were only temporary; in the autumn of 1929, when it made loans to growers to enable them to hold their wheat; during February to May 1930, when the Grain Stabilisation Corporation bought futures, and finally in November 1930 and later, when it again entered the futures market, first in support of December futures in Chicago and later of May futures. But the interesting feature is that on each occasion the Board supported wheat prices at a lower level, roughly at 115, 105 and 80 cents respectively. The recovery of prices which was essential to the success of these operations never came, and the Farm Board were left to carry forward their heavy stocks, purchased to a large extent at prices far above those ruling to-day.

The price-fixing policy has now been abandoned, but the total American carry-over on August 1st last was officially estimated at the record figure of 319 million bushels. There can be little doubt that the existence of these enormous stocks to-day and the uncertainty as to the Farm Board's policy exert a demoralising influence upon the international grain markets and a depressing effect on prices.

Finally, there remains the position of Russia, to my mind the most important single factor of all. It is necessarily obscure on many points, but it seems fairly clear that neither her production programme nor her export policy is being pursued primarily in relation to the international level of wheat prices. Her production is being developed according to "plan"; her export policy (for the time being at any rate) seems to have been dictated chiefly by exchange considerations. But from the point of view of wheat producers in the outside world, the most disturbing factor is the magnitude of the planned addition of her wheat acreage under her present programme. This is

seen if we consider to-day's position in the principal wheat-growing countries.

As was inevitable, low prices are bringing about a contraction in acreage in the four principal non-European wheat-producing countries. The estimated reduction in the current year is about 13½ million acres. In addition to these, Canada, owing to the disastrous drought, has harvested a crop of only about half the normal size—an event which, though it may relieve the world situation, may prove to be the greatest calamity that has ever befallen wheat-growers in that country. If these were the only changes, they would go a long way towards bringing about an improvement in wheat prices, but, on the other hand, according to the figures of the International Institute of Agriculture, the actual expansion in Russia during the current year has amounted to approximately 10 million acres, while a further 10 million acres are apparently proposed in 1932.

Such is briefly the world's wheat position to-day, and for the time being it holds out little hope of a recovery in wheat prices to parity with commodity prices generally. But even when all adjustments consequent upon the temporary conditions of over supply and economic depression have taken place, there still remain the long-term factors tending to keep wheat prices at a relatively low level :—the spread of mechanisation; the development of new wheat varieties; the extension of the wheat area into drier and colder regions; the improvement of cultural practices; the expansion of production on farms where costs are low; the struggle to maintain their position in face of such competition by growers whose costs are relatively high; the determination of the older countries to preserve their peasant systems, if need be by permanently sheltering them against the competition of advanced productive technique. With the slower rate of expansion of population in the principal wheat-consuming countries than in previous periods, together with a certain diminution in consumption per head in a few important countries, an increasing output is less likely than formerly to be absorbed by an increasing consumption in these regions. Such factors alone are enough, I suggest, to establish the expectation that irrespective of the general course of commodity prices, the price of wheat over a period of years is likely to be low in relation to prices of other things.

But in addition to this there is the potential output from Russia. If Russia is able to continue her present policy, if the planned addition to her wheat lands are actually brought under

crops, if she succeeds in surmounting her present difficulties (which are very great) in applying mechanised practice to the production of her grain crops, and if her present need and present determination to regain her former position as a wheat exporter continues to dominate her policy, future exports from Russia will constitute an exceedingly formidable factor operating in the same direction.

R. R. ENFIELD

THE LAW OF DECREASING COSTS

In a former article [1] I made an attempt to analyse the conditions of equilibrium in the long and short periods with reference to marginal prime, average prime and supplementary costs. Two classes of case were considered, first that of pure competition, and secondly that in which "the source of supply is not small in relation to the whole industry." It was maintained that in the second case the volume of output is determined by the intersection of the marginal prime cost curve and a curve derived from the demand curve which I called the increment of aggregate demand curve, and that the law of decreasing costs might then prevail in the long and short periods.

The increment of aggregate demand curve becomes relevant and the possibility of decreasing costs arises if and when a firm is confronted with a demand for its product of less than infinite elasticity. The definition "where the source of supply is not small in relation to the whole industry" is too narrow to cover all firms confronted with a demand of this kind. Mr. Sraffa has, in a well-known article,[2] laid stress on the case when small individual firms are held in equilibrium by being subject to increasing marketing expenses. Where the product is not completely standardised or the market not organised, the individual producer may, although quite small, have increasing difficulty in marketing increments of produce.

I propose to examine in what follows the relation between the kind of conditions which Mr. Sraffa has envisaged and the law of decreasing costs. The first paragraph is concerned with the compatibility of competitive equilibrium with short-period decreasing costs,[3] the second is concerned with the compatibility of competitive equilibrium and with short-period decreasing costs profit, the third with the compatibility of competitive equilibrium with long-period decreasing costs,[4] and the fourth with the possibility that short- and long-period decreasing costs may be the normal condition of certain industries.

[1] Economic Journal, June 1930.

[2] *Ibid.*, December 1926.

[3] "Short-period decreasing costs" is defined as the condition in which a rise in demand for a short period brings about a fall in the marginal cost of production.

[4] See the definition of "short-period decreasing costs," but substitute the word "long" for "short."

I

A firm whose product is not standardised or whose market is not organised may meet the difficulty of marketing increments of produce in two ways: by lowering the price, or by increasing marketing expenses. In so far as the conditions of the market allow a difference of price for the product of different sources, and the former method is adopted, the analysis of the equilibrium of the firm in this case may be assimilated to that provided in my former article, section II, "where the source of supply is not small in relation to the whole industry."

It is important also, however, to consider the status of marketing expenses. Mr. Sraffa holds that it is possible and "formally correct" to include marketing expenses in the cost of production, but gives grounds for holding such a method of approach unsatisfactory and misleading. But so long as we use the concepts of supply and demand schedules in analysing the market complex, it is difficult to avoid putting these costs on the supply side.

For the purpose in hand we may confine our attention to marginal competitive marketing costs, *i.e.* those costs of marketing which are necessary to ward off the competitor at the frontier of a sphere of influence. It is assumed that any attempt to push out into the competitor's territory is attended with rising marketing costs per unit of sales, and that a surrender of territory to him would allow a reduction in them.

Marginal competitive marketing costs can thus be represented as a function of the output of the individual firm. But it appears that they do not depend on this only. For let a rise in demand supervene on equilibrium, causing an increase of output: if the rise is evenly diffused over the whole market, firms should be able to maintain their frontiers without increase of marketing effort. A higher competitive marketing cost is the price of trespass into the neighbour's territory. If no trespass in either direction occurs, no rise in this cost per unit at the margin should occur. But all will be producing more in the new equilibrium.

It seems to follow from this that the marginal competitive marketing cost is a function not only of the quantity of output, but also of the state of demand. But if this is so, a complete reconstruction of the notion of a supply schedule becomes necessary. In the usual analysis supply and demand schedules are regarded as independent of one another. On the new view every demand schedule has its own appropriate supply schedule. To determine equilibrium after a change in the former, the latter

also must be changed. The customary graphical representation of supply is no longer possible. Any given supply schedule of the old type is only valid while the demand remains constant. To draw a single supply schedule to be valid for all states of demand, it is necessary to use three dimensions. Cost becomes a function of two independent variables quantity of output and state of demand.[1] Thus the traditional analysis breaks down.

This at once seems to throw light on the vexed question of how a condition of decreasing costs may be compatible with competitive equilibrium. In equilibrium the state of demand may be taken to be constant and the cost of production becomes a function of one variable, viz. quantity of output. It is thus a sufficient condition of equilibrium that costs should rise for increasing quantities of output. The expressions decreasing and increasing costs are, however, usually taken to refer to the response in supply price to changes in demand. So long as the supply schedule was conceived as independent of the demand schedule, the effect of a change in the latter could be read off from a curve showing cost as a function of output; if that had an upward gradient between its points of intersection with the old and new demand curves, prices were expected to rise. But if to determine the new equilibrium a new supply schedule has to be drawn, derived from a cost curve a component part of which is marginal marketing cost (now reduced throughout the relevant range), it cannot be determined *a priori* from the upward slope of the old curve whether the point of intersection of the two new curves will be above or below the old point. If the new price is below the old one, then in the accepted sense of the term the firm is subject to decreasing costs, and, if we may suppose the firm to be an equilibrium one in Professor Pigou's sense,[2] the whole industry is subject to decreasing costs. Thus competitive equilibrium is compatible with decreasing costs in the ordinary sense of that expression.

If it be supposed that in a firm costs other than competitive marketing costs are falling at the old equilibrium, but that the rise in the latter more than offsets the fall in the former, so that the total cost schedule (old type) is a rising one, it can be shown that the firm is subject to decreasing costs. For suppose an increase in demand evenly diffused among the various particular

[1] If a change in the state of demand may be complex, *i.e.* involve elasticity as well as intensity, four (or more) dimensions are necessary for a representation of supply.

[2] Pigou, *Economics of Welfare*, ed. 1929, p. 788.

spheres of influence: an increase of market can then be secured for each firm without trespass on its neighbour's sphere, and therefore without increase of marginal competitive marketing cost per unit. But if the marginal marketing cost is the same as in the old equilibrium, and the residual marginal costs are lower owing to the larger output, combined marginal costs will be lower in the new equilibrium than in the old. Thus a firm which has costs other than competitive marketing costs falling, but is held in equilibrium by total costs, considered as a function of output only, rising, is subject to the law of decreasing costs.

II

The second difficulty in supposing a competitive equilibrium to be compatible with the condition of short-period decreasing costs arises from the fact that if marginal costs are falling, the marginal prime cost will probably be less than the average prime cost,[1] and if the price is equal to the marginal cost, total prime costs will not be covered.

This difficulty is resolved when it is remembered that while competitive marketing costs must be excluded in determining whether an industry is subject to decreasing costs, in equilibrium the price must cover the marginal competitive marketing costs. The aggregated marginal cost curve (old type) is supposed to be rising in equilibrium. Marginal marketing costs will stand above the average marketing costs, and the difference should more than make up for the fact that marginal productive costs [2] are below average productive costs; in this case combined marginal prime costs, to which the price is equated, will stand above combined average prime costs.

A complete account of the matter is not quite so simple. Where the market is not thoroughly unified even a small individual firm may, as Mr. Sraffa observes, be confronted with a demand curve of less than infinite elasticity. The curve of the demand for the products from an individual source of supply is not in these circumstances a wholly unambiguous concept. Starting from a given equilibrium, if an individual firm desires to expand sales, it may adopt both the device of lowering prices and of increasing marketing costs; the converse applies to contraction inside a given point. How, then, should we plot out the demand curve with which the individual is confronted? It

[1] Economic Journal, June, 1930, p. 233.

[2] The expression "productive costs" is here used as equivalent to all prime costs less competitive marketing costs.

seems to be the best plan to assume that in departing from a given equilibrium the individual will follow the path of maximum receipts, will cut down prices by that amount and increase selling expenses by that amount which will in the aggregate involve him in least loss of net receipts; or will raise prices by that amount and cut down selling expenses by that amount which will bring the greatest net gain. Then we may plot that section of the demand curve which lies on either side of equilibrium on the assumption that he would combine price regulation and selling expense in the way most advantageous to himself.

To illustrate how a falling particular demand curve affects the relation of costs to price, we may suppose that the whole manipulation of the market at the disposal of the individual firm consists of price regulation, and that the selling expenses are null. In such a case the marginal cost curve would be composed solely of productive costs. Even so, falling marginal costs are compatible with profit. For the point of equilibrium is determined by the point of intersection of the marginal cost curve, and the increment of aggregate demand curve.[1] A halt is called to production at the point at which the net increment of cost rises above the net increment of recepts due to it. But if the demand curve is falling, the increment of net receipts due to an extra unit is less than the price per unit. If y_1 is the price per unit and η the elasticity of demand at the point of equilibrium, the increment of receipts falls short of the price by $\frac{y_1}{\eta}$.[2] If the elasticity is equal to or less than one, there are no net receipts. It must be remembered that the particular demand curve with which the individual is confronted has a far greater elasticity than that of the market, since the products of competitors are available as substitutes; indeed, it approaches infinity as the organisation of the market approaches perfection.

The statement that the marginal cost of production is, in equilibrium, equal to the price, less the price divided by the elasticity of demand, has universal applicability. Pure competition with a perfectly organised market is the special case in which elasticity is infinite, and the marginal cost of production is therefore equal to the price.

[1] ECONOMIC JOURNAL, June 1930, pp. 238–239.

[2] The increment of aggregate receipts is $\frac{d(xy)}{dx}$

$$\frac{d(xy)}{x} = y + \frac{xdy}{dx} = y - \frac{y}{\eta}.$$

Since the price exceeds the marginal cost of production by $\frac{y_1}{\eta}$, there is a possibility of profit. Receipts will exceed total prime costs if the gradient of the particular demand curve is greater than that of the average prime cost curve.[1] If z_1 is the average prime cost at equilibrium and K represents overhead cost plus a normal return to capital invested, profits in equilibrium will be super-normal or sub-normal according as $x(y_1 - z_1)$ exceeds or falls short of K.

The adjoining diagram illustrates a position of equilibrium with normal profit and falling costs where marketing expenses

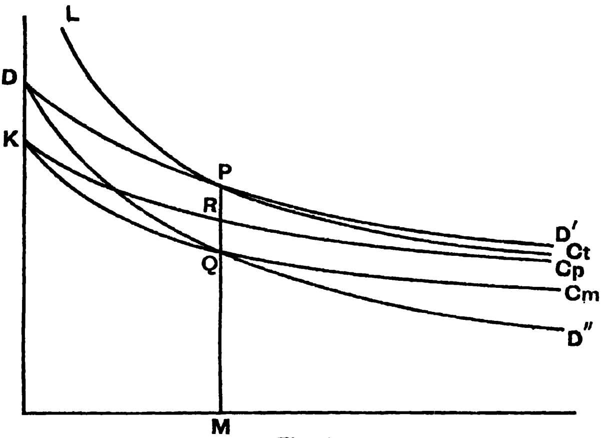

Fig. 1.

are null. KC_m, KC_p and LC_t[2] represent marginal prime, total prime and total costs respectively. DD' is the demand curve and DD'' the increment of aggregate demand curve.[3] Q is the

[1] In equilibrium the marginal prime cost is equal to the increment of aggregate demand. If y_1 is the equilibrium price and z_1 the average marginal cost in equilibrium, $\frac{d(xy_1)}{dx} = \frac{d(xz_1)}{dx}$, *i.e.* $y_1 + \frac{xdy}{dx} \quad + \frac{xdz_1}{dx}$. Then $y_1 > z_1$, if $-\frac{dy_1}{dx} > -\frac{dz_1}{dx}$, *i.e.* if the gradient of the particular demand curve is greater than that of the average prime cost curve.

From the further condition of equilibrium that the increment of aggregate demand curve falls below the marginal prime cost curve, *i.e.* that $-\frac{d^2(xy_1)}{dx^2} > -\frac{d^2(xz_1)}{dx^2}$, it can be deduced that $-\frac{dy_1}{dx}$ will be greater than $-\frac{dz_1}{dx}$, and therefore that y_1 will be greater than z_1, if $-\frac{d^2y_1}{dx^2} \ngtr -\frac{d^2z_1}{dx^2}$. Thus in the simple case of linear supply and demand functions, y_1 must exceed z_1.

[2] ECONOMIC JOURNAL, June 1930.

[3] *Ibid.*

point of intersection of KC_m and DD''. A perpendicular, QM, to the horizontal axis cuts DD' and KC_p at P and R. QM represents marginal cost and PM price. QR represents the excess of average over marginal prime cost, and PR the excess of price over average prime cost. If LC_t, the total costs curve happens, as in the diagram, to intersect DD' at P, normal profits are earned.

The intention of the foregoing analysis has been to demonstrate the possibility of the law of decreasing costs co-existing with competitive equilibrium. To do this it had to be assumed either that there were competitive marketing costs, or that the market failed to be completely unified, so that a falling demand for the products of an individual firm was possible, or both. In the first case it was necessary to abandon the orthodox notion that the supply price can be appropriately regarded as a function of one variable, viz. quantity of output of the source, or, even as, in the manner of Professor Pigou, a function of two variables, viz. the quantity of output of the source and that of the whole industry. It must be regarded as also dependent on the state of demand.

With either or both of these assumptions, the two main difficulties in the way of supposing equilibrium to be compatible with decreasing costs are overcome, viz. the difficulty that the equilibrium firm would be tempted to expand output, and the difficulty that the equilibrium firm would be making a loss.

III

The next question to be considered is how far this equilibrium can be regarded as a long-period one. It should be noted, however, that orthodox theory does not even provide for a short-period equilibrium with decreasing costs. That is clearly a matter of importance for the analysis of the trade cycle.

If a source is subject to decreasing costs, it must be producing at what is, from the productive point of view, less than the optimum rate. Is this consistent with long-period equilibrium? Will it not be in the interest of sources in this condition to amalgamate, and so to raise the output of some to a point of increasing costs, while putting others out of commission?

It was put forward above that sources subject to decreasing costs may be held in equilibrium by increasing competitive marketing expenses. These should be understood to include all costs involved in invading a competitor's territory, and there-

fore to include the costs of transport. These costs form a part of the class of costs which rise per unit with an increase of output if the demand is constant, but depend on the intensity of demand in a given area. If the expansion of a source, *a*, is checked by the rising costs of transporting into *b's* area, an amalgamation by which *a* received *b's* goodwill would not reduce these costs, or, consequently make any expansion of *a*, *ceteris paribus*, profitable. If the population or the market is sufficiently sparsely spread, it may be cheaper from every point of view to have a larger number of sources than would be desirable if transport charges could be neglected, to have, that is, sources producing at less than their optimum rate. Concentration might bring economies on the productive side; but these would only be net economies if and when the market became denser. Thus an industry may be in long-period equilibrium with productive costs falling, whenever the rise in transporting costs attendant on greater concentration would alone suffice to make gross marginal costs rise as a result of the concentration. Such an industry may be in long-period equilibrium and subject to the law of decreasing costs.

The rise in competitive marketing costs may be due to the more intensive salesmanship required, and not to higher transport charges. If it could be assumed that all firms were willing to lose their individual identity in the interest of long-period profit, then the equilibrium maintained by rising competitive salesmanship costs could not be regarded as a long-period one. Individualism should probably be treated as an influence of lasting importance. It might be assumed, for the sake of argument, that errors of tenacious individualism are at all times and in all countries likely to be offset by a frivolous inclination to rush into injudicious amalgamations. Such an assumption would constitute a pedantic refusal to take relevant factors into account, a parody of the proper use of the concept, economic man. Mr. Shove has made a further elaboration of this point unnecessary.[1] The period of the equilibrium maintained by the presence of these kinds of costs is a sufficiently long one.

IV

It remains to consider how far a condition of decreasing costs can be normal to certain industries. Must we content ourselves with saying that any industry may get into the condition of decreasing costs for short or long periods, but that such a con-

[1] ECONOMIC JOURNAL, March 1930.

dition does not arise out of the nature of any special class of industries? Must we abandon the expression "increasing returns industries"?

This topic must be divided into two parts: 1. Costs are rising in response to short-period increases in demand, but falling in response to long-period increases, if the plant of the equilibrium firm is being used up to capacity, but is constructed on less than the optimum scale. 2. Costs are falling in response to short-period increases in demand, if the plant of the equilibrium firm is not being used up to full capacity.

1. Is there any general characteristic of an industry which is likely to lead to the result that the equilibrium firm has its plant constructed on less than the optimum scale? The presence of transport charges of appreciable importance or individualism or both must be assumed. By presence of individualism is meant that the pertinacious desire of firms to retain their individual identity prevails over the tendency to rush into injudicious amalgamations. The general characteristic may be stated simply: it is that, if technical improvements of a kind that involve a larger optimum source of supply are occurring, the rate of expansion of the optimum source of supply exceeds the rate of increase of the demand. Roughly, then, we may think of industries in which technical inventions make the optimum size of the source of supply increase rapidly as likely to be increasing returns industries. The decrease in cost will occur in this case in response to long-period, *i.e.* sustained, rises in demand.

2. Are there any industries in which decreasing costs in response to short-period rises in demand can be considered as normal? *Prima facie* the condition in which the plant of the equilibrium firm was working under capacity would seem to be peculiar to certain phases of the conjuncture. Who, it might be asked, would construct a plant the optimum capacity of which was in excess of the prospective normal demand? The objector to decreasing costs can be met even on this ground. If the prospective normal demand of the equilibrium firm is such that it will not absorb the optimum output of the optimum plant, it is probable that the firm will construct a plant the optimum output of which will exceed the prospective normal output. In this case the plant, when producing for the normal demand, will show decreasing costs. If a firm is considering the desirability of reconstruction and the proper scale of operations, the question which it asks is, not—What is the plant the optimum output of which the normal demand will absorb? but—What is the

plant with which the normal demand can be met most cheaply? If an increase of scale provides substantial economies, such an increase may be desirable, even if full advantage of the economies cannot be taken.

The truth of this can be very simply illustrated diagramatically (Fig. 2). The cost of production may be represented by a family of parabolas, each of which shows the cost of any output from a plant of given size. The lowest point of the parabola shows the cost of the optimum output from its plant. The minimum point is supposed lower the larger the size of plant, and the locus of these points a curve falling smoothly for increasing values of x, the output. It is required to find the proper size of plant for any given prospective normal demand, x_1. This

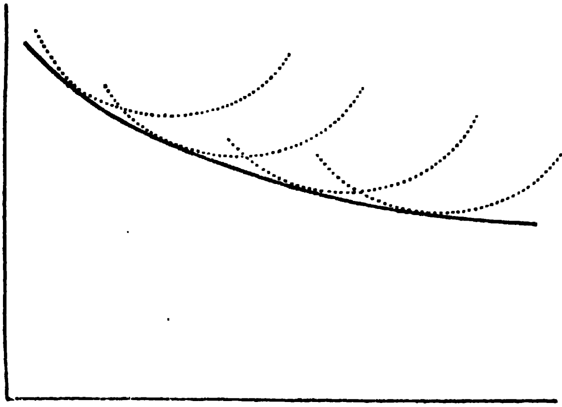

Fig. 2.

is the plant the parabola of which has of all the parabolas the lowest value for x_1; x_1 units can be produced most cheaply from a plant of such a size. Plot a curve (see Fig. 2) the ordinate of which is equal to the lowest of the ordinates of all the parabolas for each value of x. Such a curve (the envelope) may be called the long-period productive cost curve, for it shows the cost of producing the normally required output x_1, if that is properly foreseen. If, as we suppose, the equilibrium firm has its plant constructed on less than the optimum scale, the long-period productive cost curve is falling in the neighbourhood of equilibrium. The long-period productive cost curve must never intersect any parabola of the family, for if it did, it would for some value of x stand above the lowest value of one of the family. It follows that the long-period productive cost curve is for every value of x tangential to the parabola of the appropriate plant. But the

long-period productive cost curve has a downward gradient. The parabola of the appropriate plant has, therefore, also a downward gradient at the point of normal output. This means that when the demand for the output of a firm is precisely that which the firm had in mind in constructing its plant, the parabola showing the costs of that plant has a downward gradient for that output, and the plant is being worked at less than its optimum capacity. Consequently in normal times the output of this firm may be subject to decreasing costs in response to a short-period rise in demand,[1] and the rate at which costs decrease in the neighbourhood of normal is precisely equal to the rate at which costs decrease in response to a long-period rise in demand.

The conclusions of this article may be briefly summarised.

1. If competitive marketing costs are present, or if the equilibrium source is confronted with a falling demand schedule, competitive equilibrium is *consistent* with decreasing costs in the short period. To give a correct representation of the effect of competitive marketing costs, the orthodox supply schedule is inadequate. Supply price must be considered as a function of the state of demand as well as of output. If marginal costs other than competitive marketing costs are falling at equilibrium, the firm is subject to the law of decreasing costs in the short period.

2. Profit is *consistent* with this equilibrium.

3. Competitive equilibrium is *consistent* with decreasing costs in the long period also, if appreciable transport costs are involved, or if a spirit of individualism is prevalent among *entrepreneurs*.

4. Competitive equilibrium with decreasing costs in the short and long periods may be regarded as *normal* to industries the rate of expansion in the optimum plant of which exceeds the rate of increase in demand.

There has been no reference to the question of external economics.

The considerations brought forward seem sufficient to establish the legitimacy of the conception of increasing returns industries.

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[1] It is not possible to say that the output *is* subject to decreasing costs in response to a short-period rise in demand, since the parabola is a total costs curve and rising marginal are consistent with falling total costs.

THE RESULTS OF THE 1928 NEW ISSUE BOOM

THE year 1928 was notable for the buoyancy of the London market, prices generally showing a rising tendency. During this period no fewer than 283 new issues of ordinary, preferred, and deferred shares, and of industrial debentures, were brought out on the market. (Home, Foreign & Colonial, Government and Corporation Bonds, as well as shares introduced privately, have been excluded from this inquiry.) A large number of the above commercial issues were, however, undertaken by promoters of one kind and another whose flotations proved wholly unsound. The trade of the companies concerned varied from automatic machines of all varieties to colour photography and artificial silks. Under the stimulus of the boom in stock prices the public subscribed all too readily to these new companies, with the results shown in the following figures:

1. Total capital subscribed in 1928 as between ord., pref., def. shares and debentures for 284 companies	£116,803,700
Total market value of the capital subscribed as at May 1st, 1931 (where ascertainable) .	68,133,600
[1] Net capital depreciation as at May 1st, 1931	£48,670,100
	= 42%

On this basis the depreciation suffered by the investor between 1928 and 1931 on the above subscribed capital of £117 millions is shown to be £48·7 millions, equal to 42 per cent. on the amount originally invested.

The above figures are all-inclusive. That is, the £50 millions net capital depreciation has been arrived at by calculating not only the decline in market value of the shares of those companies still in existence and operating, but also by including the capital sums definitely and irrevocably lost through the winding up of concerns floated in 1928. This, therefore, is effective loss, and shown as such, but is not quite accurately described by

[1] *I.e.* after allowing for appreciation on those shares which have risen in value. Among those the *Ford* is a conspicuous item, accounting alone for £5 millions capital *appreciation*. For this reason the above figures are repeated on the next page with the exclusion of the *Ford* item.

"depreciation." The results obtained in this connection were as follows:

(a)	62 companies floated in 1928 and included in the above total are now wound up, the subscribed capital thus lost amounting to	£13,702,150
(b)	45 companies with a subscribed capital of . have no ascertainable value.	10,430,025
(c)	4 companies with a subscribed capital of . could not be estimated because the shares are held privately.	1,299,125
	111 companies	£25,431,300

In the cases of certain Companies included under "a" above, however, something may be saved from the wreckage and a partial capital repayment made to shareholders from the realisation of the assets. Six of the Companies floated in 1928, which came early to grief, have since been reconstructed, original shareholders receiving a small shareholding interest in the reconstructed enterprise. But as it is impossible to determine accurately the value of these residua—constituting in any case only a small proportion of the cash originally subscribed—they are ignored for the purposes of this investigation.

2. In order to avoid giving a distorted picture of those concerns which had at any rate continued their operations, we give the following figures which show the depreciation on the shares and debentures, floated in 1928 which are still quoted and dealt in on the Stock Exchange:

Capital subscribed during 1928 for issues still in existence and with an ascertainable value .	£91,271,900
Market value as at May 1st, 1931 . . .	68,133,600
Net capital depreciation	£23,138,300
	= 25%

3. As already pointed out, the Ford Company has proved a striking exception to the general rule. Furthermore, on account of its magnitude (capital appreciation almost £5 millions), its inclusion tends somewhat to falsify the picture, since the appreciation on its shares more than outweighs the depreciation on 25/50 small flotations of the kind which it is so desirable to see prevented in the future from coming into existence. In conse-

PUBLIC ISSUES 1928.

(Excluding all Bond Issues.)

Date.	Name.	Nominal Value.		Total Cash Subscribed.	Market Value. May, 1931.
		Pref. Shares and † Debentures.	Ord. and Defd. Shares.		
Jan.					
5	Buenos Aires Central Rly.	£1,000,000		£987,000	£572,500
9	Bolsom Bros., Ltd.	85,000	£17,000	102,000	43,400
9	East Metropolitan Brick Works.	120,000	6,000	126,000	Wound up
9	Grand Buildings.	†625,000		603,125	Privately held
9	Safetex Safety Glass.	175,000	8,750	183,750	Wound up
9	United British Steamship Co.		300,000	300,000	60,000
10	English & New York Trust.		729,970	729,970	584,000
17	Yeast-Vite, Ltd.	300,000		300,000	240,000
20	1928 Investment Trust.		1,250,000	1,250,000	1,000,000
25	Anglo-Java Rubber & Produce Co.	†1,000,000	360,000	2,080,000	540,000
30	London Border & General Trust.		1,500,000	1,500,000	750,000
30	Beechams Pills.	1,000,000	75,000	1,075,000	870,000
30	United Picture Theatres.	†275,000 175,000		447,250	227,000
30	Financial Times.	1,000,000		1,000,000	875,000
Feb.					
1	The British & Colonial Furniture Co.	400,000		400,000	260,000
2	Crystalate Gram. Record Mfg.	100,000	50,000	150,000	200,000
6	International Tea Company's Stores.		850,000	4,250,000	3,740,000
6	Dominion Theatre, Ltd.		250,000 6,250	256,250	133,300
8	Debenhams Securities, Ltd.	2,000,000		2,000,000	1,300,000
13	Cellulose Acetate Silk Co., Ltd.		950,000 47,500	1,045,000	106,875
13	Provincial Cinematograph Theatres.	853,429		853,429	725,000
14	British & German Trust, Ltd.	†750,000		693,750	644,000
15	British & Dominions Film Corp.	220,000	11,000	231,000	27,500
16	Redeemable Securities Inv. Trust.	200,000		200,000	140,000
16	Rennes Artificial Silk Co., Ltd.		120,000 12,000	132,000	No price
20	Stewarts & Lloyds S. Africa, Ltd.	300,000		300,000	302,500
20	Jenson & Nicholson, Ltd.	200,000		200,000	75,000
21	Bird & Co. (Africa), Ltd.	†100,000		100,000	75,000
22	Ascot Motor & Mfg. Co., Ltd.	250,000	57,500	307,500	Wound up
22	International Brick Co.	150,000	15,000	165,000	No price
23	Northcliffe Newspapers, Ltd.	†3,000,000		2,970,000	2,850,000
27	Welsh-Pearson-Elder Films, Ltd.	170,000	8,500	178,500	6,410
27	London Power Co., Ltd.	†1,000,000		3,900,000	4,100,000
28	North British Artificial Silk, Ltd.	315,000	17,250	362,250	No price
28	The National Omnibus & Transport Co.	200,000	100,000	325,000	440,000
29	Anglo-Oriental Corp., Ltd.	880,000	55,000	1,034,000	523,600
29	Broughton Copper Works (1928), Ltd.	425,000	63,750	552,500	119,375
March					
5	United Motor Finance Corp., Ltd.	400,000		400,000	285,000
5	Investors Trust Assoc., Ltd.		750,000	750,000	562,500
8	Sunlight Laundries, Ltd.	225,000	22,500	247,500	226,000
12	Mambré Estates, Ltd.	†60,000		58,200	
15	The Carlton Shoe Co., Ltd.	80,000		80,000	8,000
19	Velocium, Ltd.	150,000	100,000	250,000	Wound up
20	Chez Taglioni Restaurant, Ltd.	37,500	7,500	45,000	Wound up
21	General Theatre Corp., Ltd.	†2,250,000 1,250,000		3,387,500	2,250,000
22	Dominion Gramophone Records.	100,000	10,000	110,000	Wound up
26	Westminster City Properties.	300,000	30,000	330,000	11,250
26	Worksop Tile & Refractories, Ltd.		175,000	175,000	Privately held
26	Vocalion (Foreign), Ltd.		120,000	120,000	1,000
26	British Screen Productions, Ltd.		125,000	125,000	Wound up
27	Gramophone Records, Ltd.		200,000 20,000	220,000	Wound up
28	Splintex Safety Glass, Ltd.	160,000	8,000	168,000	12,000
28	Beau Brummel, Ltd.	80,000	48,000	128,000	3,000
28	Evos Doorways, Ltd.		300,000 15,000	315,000	Wound up
29	Lex Garages, Ltd.	150,000	7,500	157,500	38,500
April					
2	Electramonic Co., Ltd.	75,000	25,000	100,000	†Wound up
2	British Booklet Matches.		97,500	97,500	No price
3	British Acetate Silk Corp., Ltd.		1,400,000 35,000	1,135,000	17,800
11	Power Invest. Corp.		739,250	739,250	362,000
16	Kit-Cat Restaurants, Ltd.	80,000	30,000	110,000	Wound up
16	Denman Picture Houses, Ltd.	†2,000,000		1,980,000	1,800,000
16	Latin American Invest. Trust.		500,000	500,000	No price
	Carried forward ...	£27,695,929	£11,625,720	£43,318,724	£27,107,510

† Subsequently reconstructed.

PUBLIC ISSUES 1928—*continued.*

Date.	Name.	Nominal Value. Pref. Shares and † Debentures.	Nominal Value. Ord. and Defd. Shares.	Total Cash Subscribed.	Market Value. May, 1931.
April	Brought Forward ...	£27,695,929	£11,625,720	£43,318,724	£27,107,510
18	Dulcetto-Polyphon, Ltd.	150,000	7,500	157,500	44,000
23	Phosphorine, Ltd.		400,000	400,000	198,000
23	Full-Fashioned Hosiery, Ltd.	125,000	6,250	131,250	37,500
25	Advance Laundries, Ltd.	260,000	52,000	312,000	214,500
25	Amalgamated Wallpaper Mills, Ltd.		188,000 18,800	206,800	47,000
26	Madame Tassaud's.	219,800	10,990	230,790	240,700
30	Reliance Rubber Wear.	66,500	13,300	79,800	Wound up
May					
1	S.D.H. Pianos, Ltd.	150,000	15,000	180,000	No price
2	Goodson Gramophone Record Co.		120,000	120,000	Wound up
2	Solidol Chemical, Ltd.	75,000	7,500	82,500	7,500
3	British & European Timber Trust.	400,000	200,000	600,000	No price
9	Thos. W. Ward, Ltd.	125,000	375,000	500,000	356,250
9	Hield Brothers, Ltd.	167,200	8,360	175,560	143,400
9	Gainsborough Pictures, Ltd.		200,000 10,000	210,000	75,000
14	Abbots Investment Trust.		500,000	500,000	325,000
14	Yorkshire Artificial Silk.	225,000	45,000	270,000	Wound up
15	Transparent Paper, Ltd.	265,000	13,250	278,250	59,300
15	Milletts Stores, Ltd.	150,000	7,500	157,500	93,750
16	Industrial Rubber Manufacturers.	125,000	12,500	137,500	Wound up
16	Grape Produce, Ltd.	100,000	10,000	110,000	21,700
21	Ludwig Blattner Picture Corp.	180,000	9,000	189,000	No price
21	Standard Wood Pulp Co.	200,000		200,000	20,000
21	Property & General Finance Corp.	125,000	12,500	137,500	Wound up
21	Automatic Equipments, Ltd.		62,500 12,500	75,000	Wound up
22	British & Foreign Films.		200,000	200,000	No price
22	Steel Ceilings, Ltd.		40,000	40,000	20,000
22	Cakebread, Robey & Co., Ltd.	100,000	15,000	122,500	135,000
23	Grosvenor House (Park Lane).	†800,000		780,000	744,000
23	Alvis Car & Engineering Co.	100,000	12,500	115,000	38,900
31	Underground Electric Rlys.	†4,000,000		3,840,000	1,080,000
June					
4	Palatine Industrial Finance Co.		131,250 33,560	171,525	No price
6	United Molasses Co., Ltd.	1,000,000		1,000,000	400,000
7	Walters "Palm" Toffee.	120,000	12,000	132,000	32,000
11	Sternol, Ltd.	150,000		150,000	60,000
11	Petroleum Storage & Finance Corp.		195,000 9,750	204,750	301,750
11	"Nonn," Ltd.	100,000	5,000	105,000	No price
11	Bolivia Trading Corp., Ltd.	50,000		50,000	No price
12	Richard Johnson & Nephew, Ltd.	300,000		300,000	225,000
12	Far Eastern Photomaton Corp.	†400,000	50,000	390,000	No price
13	Cliftophone Records, Ltd.	150,000	15,000	165,000	No price
14	Retail Trade Securities, Ltd.		700,000	1,155,000	Wound up
14	Picture Gramophone Records.	90,000	4,500	94,500	Wound up
14	Raylock Fabrics, Ltd.	75,000	7,500	82,500	No price
18	Consolidated Tin Mines of Burma.		350,000	350,000	52,500
18	British Cavity Brick & Tiles Works.	210,000	105,000	315,000	No price
18	Nipah Distilleries of Malaya.		152,500	152,500	15,250
18	Second Broadmount Trust, Ltd.	150,000	15,000	165,000	No price
19	Scottish Power Co., Ltd.		600,000	780,000	840,000
19	Photomaton (Lanc. & Mid.), Ltd.		250,000	250,000	No price
19	William Bernstein (Furriers), Ltd.		80,000 10,000	90,000	11,600
20	Anglo-French Banking Corp.		1,210,000	1,210,000	847,000
20	Melbourne, Hart & Co., Ltd.	120,000		120,000	90,000
20	Falk, Stadelmann & Co., Ltd.	450,000	112,500	573,750	565,300
21	Union Cinema Co., Ltd.	170,000	31,000	201,000	34,000
25	Baird International Television.		250,000	300,000	No price
25	Hickson, Lloyd & King, Ltd.	125,000	125,000	250,000	114,500
25	Metropolitan Cinema Invest. Corp.	130,000	19,500	149,500	32,400
25	Mead, Ltd.		80,000	80,000	Wound up
26	Acetex Safety Glass.		150,000 15,000	165,000	23,525
26	Keystone Knitting Mills, Ltd.		133,000 13,300	146,300	14,500
26	Waste Food Products.		105,000 5,250	110,250	Wound up
27	Southern Stockholders Invest. Trust.		1,000,000	1,000,000	700,000
27	Palmerston Investment Trust.		197,500	197,500	118,500
27	Geo. Adlam & Sons.	100,000	5,000	110,000	71,600
28	Abford Estates, Ltd.	†300,000		295,500	303,000
July					
3	Royal Mail Steam Packet Co.	†2,000,000		1,980,000	560,000
	Carried forward ...	£41,994,429	£20,394,783	£66,854,749	£30,421,425

† Subsequently reconstructed.

PUBLIC ISSUES 1928—*continued.*

Date.	Name.	Nominal Value. Pref. Shares and † Debentures.	Nominal Value. Ord. and Defd. Shares.	Total Cash Subscribed.	Market Value. May, 1931.
July	Brought Forward ...	£41,994,429	£20,394,783	£66,854,749	£39,421,425
3	Amalgamated Fruiterers.		112,500 11,250	123,750	16,875
3	Massey's Burnley Brewery.	175,000	175,000	371,875	192,500
3	Cavendish House (Cheltenham).	150,000	15,000	165,000	165,000
3	Scottish Amalgamated Silks.	925,000	370,000	1,295,000	Wound up
5	Bermuda Traction, Ltd.	†380,000		380,000	No price
5	Towles (1928), Ltd.	200,000	20,000	220,000	125,000
7	Midland Caledonian Inv. Trust.		500,000	500,000	187,500
9	Timothy Whites, Ltd.	1,000,000	50,000	1,050,000	950,000
9	National Sun Ray & Health Centres.	60,000	6,000	66,000	Wound up
9	British Benzol & Coal. Distl.	200,000	20,000	220,000	16,600
9	Richings Park Estate.	†300,000	372,500 22,500	695,000	243,625
10	Rubens-Rembrandt Assoc. Hotel.	†200,000	205,000	405,000	313,000
10	H. & G. Simonds, Ltd.	†350,000		350,000	360,500
12	Financial Newspaper Propr.		525,000	525,000	157,500
16	Gilstrap, Earp & Co.	500,000	31,250	562,500	505,020
16	Bovis (1928), Ltd.	125,000	6,250	131,250	170,000
16	O-Cedar Consolidated Trust.	200,000		210,000	25,000
16	Theatre Securities, Ltd.	100,000	100,000	225,000	No price
17	British Phototone, Ltd.		100,000	100,000	Wound up
18	Brynymor Steamship Co.	20,000	50,000	70,000	4,500
19	Duophone (Foreign), Ltd.		137,500	137,500	Wound up
19	Charles Finegold, Ltd.	100,000	25,000	125,000	Privately held
23	Algoma Pulp Paper & Dock Co.	350,000	35,000	385,000	No price
23	Savoy Gramophone Records, Ltd.		147,500	147,500	Wound up
24	Alliance Artificial Silk Co.		1,170,000	1,170,000	731,000
24	Amer. & Dominions Unbreak. Records.		200,000 20,000	220,000	No price
25	Electramonic (Foreign Rights), Ltd.		60,000	80,000	No price
30	Belgian Finance Co., Ltd.		500,000	500,000	No price
30	Robinson & Pickford, Ltd.	100,000	75,000	175,000	117,500
31	Linen & Art Silk, Ltd.	144,000	57,600	201,600	Wound up
31	Hispano-Suiza Motors, Ltd.		77,500	77,500	Wound up
Aug.					
1	British Celanese, Ltd.	2,000,000		2,000,000	600,000
1	French Phototone, Ltd.		150,000	150,000	No price
1	Trans-Oceanic Trust, Ltd.		500,000	506,250	425,000
1	World Echo Records, Ltd.		56,250	56,250	Wound up
2	Consolidated Fur Farms.		130,000	130,000	Wound up
13	Totalisators, Ltd.	200,000		200,000	200,000
Sept.					
10	Poso-Graph Parent Corp.	135,000		135,000	Wound up
17	Wireless Pictures, Ltd.		155,000	155,000	Wound up
18	Edison Bell International, Ltd.		225,000	225,000	20,000
21	Ribble Motor Services.	200,000		200,000	220,000
24	Initial Services, Ltd.	400,000	5,000	405,000	487,500
24	Decca Gramophone Co.		160,000	396,000	Privately held
25	Gamages (W. E.), Ltd.	375,000	125,000	500,000	25,000
25	Continental & Industrial Trust.	†1,000,000		885,000	885,000
26	John Lewis & Co., Ltd.	750,000		750,000	769,000
Oct.					
1	Colour Snapshots, Ltd.		150,000	150,000	No price
1	Solidol Chemical (France).		150,000	150,000	18,750
1	Streatham Hill Playhouse.	†100,000	20,000	130,000	90,000
1	London Malayan Tin Trust.		1,249,000	1,249,000	No price
2	Photo-Matik Portraits.		60,000	60,000	Wound up
3	Itonia Gramophone, Ltd.	50,000	10,000	60,000	22,500
8	Whitworth & Mitchell, Ltd.		500,000	1,375,000	1,100,000
8	Acetate Products Corp.		500,000 25,000	525,000	12,500
8	Symphony Gram. & Radio Co.		175,000	175,000	Wound up
8	Tor Investment Trust.	50,000	50,000	106,250	115,500
8	European & General Finance Corp.		400,000	420,000	55,000
9	Wiggins Teape & Alex. Pirie.	350,000		350,000	350,000
10	The Bullman Machine Co., Ltd.	100,000	20,000	120,000	No price
10	Dutton's Blackburn Brewery.	240,000	400,000	660,000	412,000
12	Third Guardian Trust.		700,000	700,000	525,000
15	Anglo-Foreign Pulp Co.		240,000 60,000	300,000	Wound up
15	Leethems (Twilfit), Ltd.	187,500	187,500	375,000	375,000
15	Paper Industries, Ltd.	240,000	12,000	252,000	189,000
15	Dominion Gram. Records (Foreign).	80,000	16,000	96,000	Wound up
15	Corona Wines, Ltd.		150,000	150,000	No price
16	Mersey Power Co., Ltd.	400,000		400,000	440,000
16	Celebritone, Ltd.		90,000	90,000	No price
16	Hickman (1928), Ltd.	70,000	7,000	77,000	10,500
16	Prices, Tailors, Ltd.	250,000	12,500	262,500	231,000
	Carried forward ...	£54,750,929	£32,282,383	£92,665,474	£51,283,795

† Subsequently reconstructed.

Public Issues 1928—*continued.*

Date.	Name.	Nominal Value. Pref. Shares and † Debentures.	Nominal Value. Ord. and Defd. Shares.	Total Cash Subscribed.	Market Value. May, 1931.
Oct.	Brought Forward ...	£54,750,929	£32,282,383	£92,665,474	£51,283,795
17	Orchorsol Gramophones, Ltd.		76,500	76,500	†Wound up
17	Turner Automatic Machines, Ltd.		175,000	175,000	13,750
17	Photo-Matik Foreign Corp.		60,000	60,000	Wound up
17	Victoria Gramophones, Ltd.		100,000	100,000	†Wound up
17	Joshua Tetley & Son, Ltd.	†500,000		487,500	500,000
17	Polikoff, Ltd.	150,000	15,000	165,000	2,500
18	Saxone Shoe Co., Ltd.	375,000		375,000	412,500
18	British Tintex & Dye Products.		145,000	145,000	4,850
18	Mid-European Corp., Ltd.	†1,000,000		940,000	910,000
22	Tocuyo Oilfields of Venezuela.		1,500,000	1,500,000	187,500
22	Blue Bird Petrol, Ltd.		210,000 42,000	252,200	Wound up
22	United Match Industries, Ltd.		7,500 150,000	157,500	24,375
22	Colour Snapshots (Foreign), Ltd.		140,000	140,000	†Wound up
22	McIlroys Stores (Hanley), Ltd.		125,000	125,000	75,000
22	Baldwins, Ltd.	†1,000,000		965,000	965,000
23	Mortimers (London), Ltd.	75,000	15,000	90,000	No price
24	Haslam & Newton.	250,000	50,000	300,000	106,250
24	Acetate & Acetate Products.		100,000	100,000	No price
24	Alaska Gold Dredging.		200,000	200,000	Wound up
25	Recordaphones, Ltd.	150,000	15,000	165,000	Wound up
25	Posograph Distributing Co., Ltd.		150,000	166,000	Wound up
26	Barker & Dobson, Ltd.	150,000		157,500	123,750
27	Textile Industrial Trust.	†500,000	500,000	975,000	Wound up
29	Friary Holroyd & Healy's Breweries.		410,430	779,817	574,602
29	Duncan, Tucker, Ltd.	125,000	12,500	137,500	68,750
29	John Gardner (London), Ltd.	100,000	20,000	120,000	94,000
29	Buckingham Brick & Tile Co.		145,000	145,000	Wound up
29	Victoria Property & Comm. Trust.	200,000	20,000	230,000	No dealings
30	Continuous Gramophones, Ltd.		138,750	138,750	No price
30	Seagoing Factories, Ltd.	130,000	6,500	136,500	Wound up
30	Whittaker Automatic Looms, Ltd.	65,000	13,000	78,000	No price
30	Sporting Times, Ltd.		80,000	80,000	Wound up
31	Coventry Gauge & Tool Co.		73,000	73,000	36,000
31	W. Barratt & Co., Ltd.	215,000	43,000	258,000	292,250
Nov. 5	British Netherlands Art. Silk.		700,000 70,000	770,000	Wound up
5	Auto Portraits, Ltd.		100,000	100,000	No price
5	City & Provincial Trust.		97,000	98,400	Wound up
5	Selected Investments Trust.		100,000	110,000	50,000
6	Henlys (1928), Ltd.	150,000	37,500	187,500	24,300
6	Hackney Furnishing Co., Ltd.	250,000	125,000	375,000	106,250
6	Mayfair Electric Gramophones.		95,000	95,000	Wound up
7	Universal Gram. & Radio Co.		140,000	140,000	11,000
7	Lancegaye Safety Glass.		115,000	115,000	19,000
12	George Hodsman & Sons, Ltd.	160,000	16,000	176,000	40,000
12	James Booth & Co.	160,000		160,000	184,000
13	Anty-Sag Parent Co., Ltd.		100,000	100,000	†Wound up
14	Ever-Ready Trust & Finance Co.		500,000	500,000	225,000
14	Mulliners (Holdings), Ltd.	150,000	15,000	165,000	22,500
14	Anti-Dazzle Screens (Canada), Ltd.		40,000	40,000	Wound up
16	Guardax Safety Glass, Ltd.		80,000	80,000	Wound up
19	Whitworth Finance & Mining Corp.	200,000	10,000	210,000	No price
19	Matchless Motor Cycles, Ltd.		110,000	186,666	84,000
19	Tri-Chrome Photos & Films, Ltd.		150,000	150,000	†Wound up
21	London General Cab Co., Ltd.		125,000	125,000	25,000
23	Maidstone & District Motor Services.	200,000		200,000	224,600
26	Antwerp Oil Wharves, Ltd.		150,000	150,000	75,000
26	Radium Springs, Ltd.	200,000	20,000	220,000	No price
26	Aeonic Radio, Ltd.		115,000	115,000	No price
26	United Picture Theatres, Ltd.	225,000		225,000	22,500
27	Ciro Pearls (Holdings), Ltd.	150,000	37,500	202,500	165,000
27	British Radio Gram. Co., Ltd.	50,000	5,000	55,000	No price
28	Super Automatic Machines, Ltd.		72,750	72,750	8,613
Dec. 3	Fremlins, Ltd.	350,000	350,000	700,000	805,000
3	Blue Bird Petrol (Foreign), Ltd.		337,500 67,500	405,000	Wound up
3	Industrial Finance & Invest. Corp.	500,000	149,980	750,000	643,500
3	Permanent Reproductions, Ltd.		135,000	135,000	Wound up
4	Wyndhams Marine Patents, Ltd.		90,000	90,000	11,250
4	Odhams Press, Ltd.	†500,000		495,000	510,000
4	Pearl Automatic Machines, Ltd.		70,000	70,000	Wound up
4	Clayton Dewandre Co., Ltd.		175,000 8,750	183,750	70,050
4	Margate Estates, Ltd.	†100,000		100,000	90,000
	Carried forward ...	£63,080,929	£41,560,013	£110,711,607	£59,094,435

† Subsequently reconstructed.

PUBLIC ISSUES 1928—*continued.*

Date.	Name.	Nominal Value. Pref. Shares and † Debentures.	Nominal Value. Ord. and Defd. Shares.	Total Cash Subscribed.	Market Value. May, 1931.
	Brought Forward ...	£63,080,929	£41,560,043	£110,711,607	£59,094,435
Dec. 6	Nuttall's Breweries, Ltd.	†400,000 200,000		594,000	594,000
10	Joseph May & Sons (Leeds), Ltd.	152,000		152,000	159,600
10	Symphony Gram. & Radio Co. (Foreign)		125,000	125,000	Wound up
11	Ford Motor Company, Ltd.		2,800,000	2,800,000	7,700,000
12	Anglo-Scottish Securities, Ltd.	62,500	6,250	78,000	Wound up
12	Universal Refrigerators, Ltd.		100,000	100,000	No price
13	Dependable Upholstery, Ltd.	70,000	14,000	84,000	No price
17	Blue Bird Holdings, Ltd.		750,000	750,000	Wound up
17	Oceana Consolidated Co., Ltd.		237,500	316,600	20,570
17	British Automatic Gram. Co., Ltd.		200,000	200,000	No price
17	"Phantestra," Ltd.		140,000	140,000	Wound up
17	Amalgamated Tobacco Trust.	125,000	12,500	137,500	No price
19	Filmophone, Ltd.	100,000	40,000	140,000	80,000
19	Home & Foreign Investment Trust.	†500,000		475,000	485,000
	Totals ...	£64,690,429	£45,985,293	£116,803,707	£68,133,605

† Subsequently reconstructed.

N.B.—While the above information has been taken from sources believed to be reliable, no responsibility can be accepted for any errors which may appear in the tables.

quence, the above results are tabulated once more, with the exclusion of the Ford Motor Company issue:

Outstanding capital as above (No. 1), excluding the Ford Motor Company issue . .	£113,903,200
Market value May 1st, 1931 . . .	60,433,600
Net capital depreciation	£53,469,600
	= 47%
4. Outstanding capital as above (No. 2), excluding the Ford Motor Company issue . .	£88,471,900
Market value May 1st, 1931 . . .	60,433,600
Net capital depreciation	£28,038,300
	= 32%

REVIEWS

Modern Currency and the Regulation of its Value. By EDWIN CANNAN. (P. S. King. Pp. 128. 5*s*.)

IT is Professor Cannan's special mission at critical moments to place before the public in readily assimilable form that portion of economic doctrine which is needed to save them from the consequences of whatever folly obsesses them for the time being.

In this book he sets out to protest against the "undue limitation of currencies." "By their present policy of rapidly accumulating gold in their central banks the gold-standard countries are raising the value of gold" (p. 65). If they "increase their fiduciary currencies, thereby reducing the value of their currencies and making the fixed prices of gold less favourable to bringing it in and more favourable to taking it out . . . gold and the gold-standard currencies must inevitably fall in value together and simultaneously" (p. 67).

Professor Cannan approaches this conclusion by way of three chapters which are designed as a highly compressed elementary text-book on currency and currency standards and on the value of a gold-standard currency. He has, in fact, been so preoccupied with making the fundamental principles clear to the plain man, that he has left himself very little space to develop his main position. He omits to mention any injurious consequences of the raising of the value of gold. And he omits to trace in detail the process by which an increase in fiduciary currencies will reduce the value of the currencies.

He relies on the "quantity theory of currency" to convince the plain man that an increase in the currency will bring about an increase in the price level. But in this book the quantity theory has shed its subtleties; it no longer states (as in Professor Cannan's earlier book, *Money*) that the elasticity of demand for money is unity, or elaborates the qualifications subject to which that principle is true. Professor Cannan is now content to say that "increases in the quantity of currency . . . must tend to diminish the value of the units of account embodied in the currency," without suggesting any definite law relating the increase in quantity with the diminution of value. His aim is, no doubt, to make the path easy for the plain man.

But one cannot help doubting whether the plain man will be satisfied. Undoubtedly he wants to hear as little as possible of the quantity theory. But he probably would like to know a little more of the actual sequence of events by which an increase in fiduciary currencies will in practice lead up to a rise of prices.

Suppose the fiduciary issue of the Bank of England to be increased by £15,000,000; what is the result? Securities to the amount of £15,000,000 are transferred from the Banking Department to the Issue Department, and notes to the value of £15,000,000 take the place of the securities in the Banking Department. What has been accomplished? Nothing.

It is true that the "monetary experts" who are pilloried by Professor Cannan among "obstacles to improvement" because they believe that the price level is affected by bank rate, might go on to say that the Bank of England would then try to expand credit, and that the joint-stock banks in turn would lend more freely till the additional notes went out into circulation. But here Professor Cannan cannot follow them. If there is, in his eyes, any "obstacle to improvement" more pernicious than the bank-rate theory of prices it is the bank-deposit theory of prices. That is the theory that "a credit balance at a bank is 'purchasing power,' and therefore if the total of such balances increases, aggregate purchasing power in the sense of power to spend money on goods and services is increased" (p. 90), or that the mass of "bank money" or "credit" "must be added to the total of the currency (of notes and coin) whenever variations in the quantity of money are being thought of as influencing prices" (p. 88).

Will not the plain man be left wondering how the additional notes are ever going to get into circulation at all?

Perhaps Professor Cannan will urge that the Bank of England, when it lends or buys securities, could hand out notes instead of paying by cheque. Probably the recipient of the notes would think he was being made the victim of a practical joke. Of course he could not refuse to take the notes. But equally of course he would immediately deposit them in his bank, and the bank, in turn, would deposit them in the Bank of England. In fact, Bank of England notes in practice pass into circulation only through the medium of bank deposits.

Professor Cannan's abhorrence of the inclusion of bank deposits in the quantity theory is all the more curious in that he starts his book by defining "money" to include "money in

the bank," in contradistinction from "currency," which he limits to notes and coin.

Needless to say, his criticisms of the bank-deposit theory of prices are pertinent and acute. Professor Cannan's criticisms always are, and all the more so when he is on the war-path. It is extremely difficult to draw a clear line of demarcation between those bank deposits which are "money" and those which are more properly regarded as investments. Overdrafts are a complication. The velocity of bank deposits varies more than that of currency, because bank deposits can be more conveniently held idle and can earn interest.

But these criticisms can all be satisfactorily met, and to formulate monetary theory under modern conditions in terms of notes and coin, is as misguided as to explain modern transport in terms of horse-drawn vehicles. We can treat bank credit as a substitute for currency, and we can treat railway trains and motor cars as substitutes for horses and carts. But we shall handle both subjects more easily if we think of mechanical transport as the principal means of locomotion and of bank credit as the principal means of payment.

This eccentricity in Professor Cannan's exposition of his subject is unfortunate. Having led the way with so much skill through the theoretical preliminaries, he will forfeit the confidence of the plain man when he starts raging against the intrusion of credit into the scheme of things. That he should fail to convince would be a pity, for the actual measures he advocates are such as the economists and experts he denounces most furiously would cordially commend. R. G. HAWTREY

Secular Movements in Production and Prices. By SIMON S. KUZNETS. (New York: Houghton Mifflin Co. Pp. 536. $3·50.)

Economic Rhythm. By ERNST WAGEMANN. (McGraw Hill Co. Pp. 287. 15*s.*)

THESE two books are typical products of latter-day empiricism. The authors have set out to analyse masses of statistical material with a view to disclosing tendencies and uniformities. Their results are often interesting and suggestive, but they are too preoccupied with the mere handling of the figures to pay more than a rather superficial attention to the theoretical and historical side of the events they deal with.

Dr. Kuznets starts from the assumption that the progress of any industry over a long period (several generations) will tend

to conform to a certain algebraic function or curve. "Industries reveal a retarded growth or, in mathematical terms, a declining rate of percentage increase." He has to find a curve which exhibits a declining rate of percentage increase, and which describes an output growing from zero to a finite level of maximum size. More particularly it must "show the changes in absolute increase as dependent upon the stimulating influence of size of output and the retarding influence of the approach to the limit" (p. 64). Dr. Kuznets finds what he seeks in the "logistic curve," $y = L/1 + e^{a-bx}$

An alternative is the curve, $y = ae^{bx}$

If progress normally conforms to the selected curve, then any deviation from the curve becomes an event requiring an explanation, and the main purpose of Dr. Kuznets' analysis is to reveal such deviations in the case of a variety of industries in the more important countries.

The method is an elaboration of the familiar process of eliminating trend. But it is not very clear that the elaboration is an advantage. Cyclical movements are shown in the yearly deviations, and longer-period or "secondary secular movements" are shown by the deviations of seven-year moving averages.

But the cyclical movements are just as well (perhaps better) displayed by the deviations of the yearly figures from the moving average. And the secondary secular movements can, in general, be inferred well enough from the curves representing the seven-year moving average itself, without introducing any comparison with an assumed normal trend curve. In fact, the danger of misrepresenting the normal trend by such a curve is at least as great as that of confusing what is really a phase of the normal trend with one of the movements to be investigated.

Side by side with the movements of output Dr. Kuznets analyses movements of prices. Here he assumes the normal trend to be represented by a parabola. The assumption seems to be quite unwarrantable, though of course a curve of the second degree can be fitted more closely to any given trend than a straight line.

Secondary secular movements are disclosed in the price of each commodity investigated, and a connection (not very intimate) is suggested between the price movements and the output movements. Dr. Kuznets offers explanations of the secondary secular movements, which do not differ very fundamentally from the monetary explanations of the trade cycle. He seems inclined to identify them with the well-known long-period movements in

the price level in the century preceding 1914. But, like all the theoretical parts of his work, this is tentative and inconclusive. It is curious that when he turns to the cyclical movements, and discusses the relation of his results to various theories of the trade cycle, he entirely neglects the monetary theory. He apparently conceives of cyclical fluctuations not as influencing all industries and many countries, but as affecting different industries independently, so that the length of the cycle varies from industry to industry (pp. 296–8). He finds a very short cycle for the cotton industry of the United Kingdom. But this seems to be because the imports of raw cotton, which he takes as the measure of its activity, vary more directly with the American cotton crop and carry-over than with the consumption at the mills.

Dr. Wagemann, though primarily an empiricist, places more reliance on theory than Dr. Kuznets. He distinguishes on the one hand isolated or non-recurrent changes in economic conditions, and on the other seasonal changes directly dependent on the time of year, and between these two classes there come the cyclical changes. The periodicity of the cycle arises not from the seasons, but from the existence of a tendency to reaction. "In order to form a positive conception of business cycles by a purely abstract method, we must begin by presupposing a perfect circulation of money and goods in the national economic system. Business cycles are disturbances in this 'state of equilibrium'—however caused—which lead to a corresponding deviation in the opposite direction" (pp. 67–8).

Dr. Wagemann refers to the "long-wave economic movements," which he finds exhibited principally in the price level. His explanations are extremely inconclusive. He suggests that the rising prices of the periods 1790–1815, 1850–73 and 1896–1914 might be attributable to the wars which occurred in those periods, but does not exclude the alternative that changes in the gold supply and the demand for gold as money may have been responsible.

Dr. Wagemann's discussions of the theory of the trade cycle include many observations and criticisms which are both valuable and interesting, but he does not avoid the besetting fault of the empiricist, the absence of any background of *systematic* reasoning. And much of his treatment of the subject is vitiated by too exclusive a concentration on post-war experience and, even within that, upon German experience from 1924 to 1929. He could scarcely expect to find normal or typical experience there.

R. G. HAWTREY

British Banks and the Finance of Industry. By S. EVELYN THOMAS, B.Com., London. (P. S. King & Son, Ltd. 1931. Pp. vii + 290. 12*s*. 6*d*.)

THERE is always something of a tragedy in the premature publication of a book, which, whatever its merits, might have been very much better had the author only waited in order to study documents which were in fact issued shortly after his own work appeared. This is true of the book now before us, for Mr. Thomas's theme is substantially that of the Macmillan Committee on Finance and Industry, and the space now given to many aspects of his subject would have been more usefully devoted to an analysis of that Committee's history of events, description of institutions, and formulation of remedies. Another thing must be said. Probably to every student of economics, when he has proceeded a certain way into his subject, there comes the urge to put down on paper what he knows, to "get it off his chest," before he can clear the road for a further advance. The account inevitably lacks proportion and slips over into subjects only remotely connected with the main topic. Mr. Thomas's book falls in some degree under these strictures. It is rather a source-book than an independent treatise, but that is not to say that it is devoid of merit; if it is taken for what it really is it will be found very useful and may save other students much research in the collection of facts and the collation of opinions.

Mr. Thomas's main thesis is that "the nation is now faced with an economic upheaval as radical as the Industrial Revolution of the early nineteenth century" and that the main road to a healthy society lies through the rationalisation of industry, a process which requires the assistance of the banks and demands some reconstruction of their business principles. He begins by sketching, in sixteen pages, the post-war depression, and devotes the next thirty-one to an account of "monetary policy and its control," detailing the industrialist criticism of the credit policy of the Bank of England and touching on the fall of prices and the problem of wages costs. Here he has missed the opportunity of discussing the interlinked "psychology" of business and finance. There follows a long chapter of forty-six pages on the need for rationalisation in British industry; it is a competent piece of work and the chief criticism that one would make is that it does not tackle the problem of the industry composed of numerous small units or that of the future of the displaced workpeople. Rationalisation in the cotton industry has, as the author recognises, been hampered by the individualist tradition, and the

position in the wool textile industry is, in that regard, even worse. Whether we must rely on the slow development of horizontal combination and vertical integration, or whether we should seek to apply measures of direct or indirect compulsion, is never squarely faced, and yet we cannot wait for ever on the education of our "captains of industry." The other problem is also put on one side, yet we are faced with the alternatives of starvation or maintenance and training in new work. It is of little use to counsel patience or to "deplore the hardship inevitably caused to individual producers and workers" while rationalisation is getting under way.

The next two chapters deal with the continental system of industrial finance (eighteen pages) and the finance of British industry (twenty-six pages). These are also well done, but the description does not go beyond what is generally known, and here, surely, there was the need for further exploration. The book purports to deal with banks and industry, and only one-seventh of it treats expressly of what is now done not only by the banks but by the "capital market" and the "money market." Nevertheless, his main conclusions are sound, that the banks have to face a new situation, learn more about trade and industry, and take a more active part in development and rationalisation. The views of the Macmillan Committee are similar. The sixth chapter, of twenty-five pages, deals with the attempts of the joint stock banks and, more particularly, of the Bank of England to arrive at solutions along those lines, and here one would demur to the whole-hearted commendation of "hire-purchase," "instalment buying," or "consumer credit." Despite Professor Seligman's monumental treatise (not referred to by Mr. Thomas) the problem is not so simple and the dangers of inflation not remote.

A chapter of thirty-one pages on "British Banks and Agriculture" is useful, but the next, of forty-six pages, on "The Government and the Industrial Situation," might well have been omitted. The last chapter deals in thirty-one pages with "Lessons of the Controversy," in which he brings together the suggestions made in the preceding chapters. One would here again emphasise the author's typically scrappy way of dealing with the real cruces of the industrial problem, in this case the adjustment of labour costs. It is futile to say that "somehow or other the balance between real wages and industrial productivity must be restored." In this respect the Macmillan Committee proposes to adjust wages and costs by, with the help of the Central Banks,

raising the average international wholesale price-level of the principal food-stuffs and raw materials; the task would be difficult and the Committee has not worked out all the reactions. Others would seek adjustment by a reduction of wages, but no one has yet told us what reduction would be required in any specific case to ensure the regaining of lost export trade, and no one has calculated what would be the effect of a reduction on the home market for the great staple trades of food, clothing, furniture, etc., which depend on the working-class demand. There is a lot that we need to know, in addition to the statistical information given by Mr. Thomas in his appendices.

HENRY W. MACROSTY

The Fall of Prices. By JOHN A. TODD, M.A. (Oxon.), Principal of the City School of Commerce, Liverpool. (Oxford University Press.)

IN this brief treatise the author discusses the recent fall of prices, and argues that it cannot be attributed to any scarcity of gold, since gold production, though it shows a tendency to diminish, is not likely to fall below the level of post-war monetary requirements for some time, and in the meantime new methods of economising it may be added to those which have already been so successfully applied.

He then discusses whether the fall in prices may be attributed to scarcity of money in the general sense of purchasing power, and concludes that, so far as Great Britain at least is concerned, there is no evidence that the volume of credit has been unduly restricted. He does not take into account the possible variation of velocity (in any of its different senses), which bank deposits may have experienced since 1920, nor the possibility that a certain amount of bank money may owe its continued existence to the freezing of the corresponding bankers' assets.

His further argument that the action of certain countries in accumulating unduly large reserves of gold can have had no effect on the general world situation is not convincing to anyone who has read the (subsequently published) Macmillan Report on Finance and Industry. Doubtless, Mr. Todd would revise some of his conclusions in the light of the new information which has become available in this Report and elsewhere.

The view that the overproduction of important basic commodities and the reduction of consumption, especially in America, following on the Wall Street crash, had more than a little to

do with the general world crisis now appears to command general assent.

Among the possible cures which Mr. Todd suggests, the present writer would be inclined to lay chief emphasis on the need for increased consumption on a world-wide scale. He cordially agrees that one of the first things that will help to overcome the present difficulty is a reduction of retail prices.

The view may be suggested that the element of waste in the distribution of goods varies at different stages in the business cycle, that the relatively high level of retail prices in times of depression is partly due to an incidental increase in this element of waste, and not merely to relatively high wages and net profits, and that there is a definite causal relationship between distributive waste and unemployment. In the case of Great Britain, the United States, and an aggregate of six small countries, curves can be constructed showing for the period 1921–1925 a percentage index of employment and a composite index made up by expressing the index number for wholesale prices as a percentage of the index number of the cost of living in each year. There is a close correspondence in the two sets of curves. In other words, the higher the wholesale index in relation to the cost of living index the higher the percentage of employment. It must be admitted that the main cause of chronic unemployment in Great Britain, after 1925, was the disequilibrium between internal costs and external prices, while, as Mr. Todd also insists, the fall since 1929 is directly attributable to the Wall Street crash.

But possibly all these phenomena may really be referred to a single general cause, *i.e.* a failure of monetary transactions to correspond to fundamental economic facts. The contrast between the extreme fluidity of monetary exchanges and the extreme viscosity of economic exchanges, especially in the international sphere, has frequently been remarked. Similarly, the well-known lag of retail prices may be regarded as an example of the same thing; for it falsifies the monetary signals from consumer to producer in both directions.

The now-familiar thesis about the need for a correspondence between the volumes of monetary savings and new investment is another aspect of the same general principle. It would seem to be the case that, if retail prices *could* be quickly and substantially reduced, the effect would be to stimulate new investment and a growth of employment perhaps more successfully than by the method of manipulating the rate of interest. On the other hand, in the present world situation, in which there

is a redundant supply of food and raw materials, any stimulus to investment, whatever its origin, would probably have the effect of raising wholesale prices without raising retail prices, and might even be consistent with a further fall of the latter. After all, even if retail prices remained stable at their present level, wholesale prices would have to rise nearly to their 1928 level before the 1924 relationship between the two sets of prices would be restored.

The view that works of capital development could possibly have the effect of narrowing the margin between retail and wholesale prices, still more of *lowering* the former, may seem surprising. It is, however, intelligible if we bear in mind that a number of retail traders in the localities affected will experience an increase of business which will have the effect of lowering the price at which they *could* sell and yet make a total income even greater than before. Competition for new business would in such a case be likely to cause a general lowering of prices. At any rate, when the Prices Tribunal set up by the Irish Free State Government was conducting its enquiries in 1926–1927, it was found that prices in Limerick were in every case the lowest that came under review. The fact that the construction of the Shannon Hydro-Electric Station in the immediate neighbourhood was then in progress was probably more than a coincidence.

These phenomena may be capable of expression in the monetary terminology which is now so fashionable. Like Mr. Todd, the present writer holds the view that there are non-monetary as well as monetary explanations of the present crisis, and the former have not received the attention they deserve.

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The Fight for Financial Supremacy. By P. EINZIG. (London: Macmillan & Co., Ltd. Pp. 144. 7*s*. 6*d*.)

THE extraordinary sequence of events which has occurred since the publication of this interesting and skilful plea for the financial supremacy of London, has at one and the same time justified and disproved its conclusions. Once more the fact has been established that, from the point of view of the world economy as a whole, an effective lead of London in world finance in boom as well as in crisis times would be highly desirable. It has been proved that the two other chief creditor centres cannot supplant

London in this rôle, and also that, because of the reasons clearly analysed by Dr. Einzig in the main part of his book (Chapters IV–VIII: lack of tradition, lack of technical equipment, and the social-political atmosphere surrounding them), they are unable to play their part in co-operating with London in sustaining world financial stability, and that the disruptive forces thereby set free threaten the whole capitalistic system with disaster. At the same time, it has been again established that the effective lead of London is impossible without thoroughgoing reform of an economic and not of a financial nature. Starting from our present predicaments, Dr. Einzig, in the introductory and in the final chapter, ably expands the right political and financial conclusions; that close co-operation is necessary in order to stop those tendencies which at the present moment chiefly threaten economic progress; artificial pressure upon the price level and economic nationalism. There are, however, other evils in the individual national economies which, even if patched up for a few years by financial help and co-operation, must in the long run lead to a general breakdown similar to or even worse than the present one. These disequilibria have been mainly caused by non-economic measures (monetary and non-monetary, like stabilisation of currencies on artificial levels; valorisation schemes; extravagant social legislation; tariffs, etc.). They are not only obstructing the normal functioning of those forces which in our present economic system tend to preserve and/or restore equilibrium, but positively aggravate disequilibrium. Without their elimination individually in each country and by co-operation no return to "normal" can be expected.

The author, treating the fight for financial supremacy as a question of a technical financial nature, rather overlooks these deeper implications. In Chapter II he recognises that financial supremacy is conditional firstly and mainly upon ample resources. But, analysing the position of the different financial centres, he passes lightly over this central problem. This to some extent must vitiate his conclusions. Undoubtedly in most other aspects (organisation, traditions, freedom from political interference) London is vastly superior to its competitors. But is it not this factor which in the long run must decide the issue? It would have been extremely interesting if a study of the repercussions on the financial sphere could have been attempted. The increasing difficulty to afford help in bad times, or to finance progress in good times, without embarrassing the authorities responsible for maintaining the gold standard, must in the end handicap the

best-equipped market. There is no doubt that exceptional difficulties arose in England during the last decade; but the same circumstances which tended to depress the position of London were also militating against a real leadership of the other centres. In America the higher natural rate of interest was the cause not only of an unparalleled prosperity and lending power, but also of the unwillingness of American investors to buy foreign assets. The stabilisation of the franc on too low a basis, providing France with an exceptional foreign balance, was partly a logical concomitant of a financial policy which prevented an effective use of this foreign balance through long-term financing and an additional deterrent to the French rentier.

Dr. Einzig's book is an interesting study of an interesting aspect of the history of the last decade—a decade full of dangerous contradictions and disruptive tendencies. One can only endorse the general conclusion that not destructive fight but peaceful co-operation must be the aim of the financial powers. One is tempted to ask, however, whether the author would not have performed a better if less agreeable service to London by pointing out not on what grounds it is to be wished that financial supremacy should return to London, but what conditions—economic and financial—must be fulfilled to make this restoration possible and effective. Only through the solution of this problem will London be able to assume her rôle as co-ordinator in world finance and do her share in the reorganisation of our present economic system necessary to ensure its continued existence.[1]

T. Balogh

The Crisis in Australian Finance 1929–31. With Introduction by E. O. G. Shann and D. B. Copland. (Angus and Robertson, Ltd. Sydney. Pp. 201. 5s.)

This is a well-chosen collection of documents, indicating " the evolution of opinion among responsible groups during the crisis " and covering the period from October 1929 to March 1931. Especial attention may be directed to the award of the Commonwealth Court of Arbitration in January 1930, reducing wage rates by 10 per cent. The summing-up of the Court, together with the evidence of Professor Copland, which precedes it, occupies about a third of the volume, and gives a well-reasoned picture of the

[1] This review was written before the financial crisis forced England off the gold standard. Its conclusion becomes even more important in the present situation, when a new plan of currency management or stabilisation has to be worked out.

situation. The Report of the Committee to the Canberra Conference contains many useful statistics. The editors contribute a very readable introduction, and the little volume as a whole can be warmly recommended.

The broad outlines of the Australian crisis are well known. Three points concerning banking policy, however, may be of interest. First, English readers may be puzzled by the stress laid by Australian writers upon the changing ratio of the banks' advances to their deposits. Taken alone, this ratio appears to tell us little. In Germany, for example, a bank has sometimes been founded by an industrial group, and has been given a very large capital in order to lend most of it (on long-term) to that group; its advances have therefore exceeded its deposits. In Australia, however, the ratio has a special significance. Most of the foreign exchange business is in the hands of the banks. When Australian importers buy foreign exchange they reduce their deposits or increase their advances and—in contrast to internal transactions—no corresponding new deposits are created in Australia. Instead, the London balances of Australian banks tend to diminish. Thus, as long as Australia was trying to "peg" the exchange value of its currency by maintaining a sterling-exchange standard, an increase in this ratio (assuming that banks' capitals remained the same) indicated a less favourable balance of trade, and acted as a danger signal, comparable to the falling of the exchange-value of the pound to near the gold export points in the case of Great Britain. The ratio increased from 82 per cent. in June 1928 to 96 per cent. in December 1929.

Secondly, it may be thought that the decline in the note-issue from some £57 million in June 1924 to some £44 million in June 1928 indicates deflation. This is not so. During this period £14 million of £1000 notes, which the trading banks had used solely to settle their clearances, were withdrawn and replaced by deposits of the trading banks with the Commonwealth Bank. These deposits are regarded by the trading banks as cash, so that the total cash did not decrease. It has been urged that the banks pursued a policy of deflation before the crisis. In fact, they did the opposite. Australians do not seem fully alive to the significance of the cash-deposits ratio. Mr. Mackay, for example, scarcely mentions it in his book on the Australian Banking and Credit System. The present volume contains only one passing reference to it. Yet this ratio fell from 18·8 per cent. in June 1928 to 14 per cent. in June 1930. This means that the appropriate response to the rising advances-deposits ratio—

assuming that Australia wished to keep her currency tied to gold—was not made. The banks did not deflate: they inflated.

Finally, I think the example of Australia shows that monetary policy alone may not be sufficient to cope with internal and budgetary problems in the face of practically fixed wages and interest-charges and other rigidities. (A free exchange rate, however, has solved her external balance-of-trade problem, and has spread the loss arising from the fall in export values over all purchasers of imports.) The wisdom of her attack on the *rentier* as such may be doubted, but the direct reduction of wage rates and of public expenditure was a necessary supplement to deflation. This appears to be true also of Great Britain: for example, a policy of deflation might fail to reduce wages in the sheltered home industries in order to enable them to expand.

F. C. BENHAM

The Australian Banking and Credit System. By A. L. G. MACKAY. (P. S. King & Son. 1931. Pp. 255. 12*s*. 6*d*.)

THE chief contribution to knowledge of this volume is a brief life-history of the fifty-seven banks which have been established in Australia up to the present time, beginning with the Bank of New South Wales in 1817. Of the fifty-seven, sixteen still survive, sixteen have failed, and twenty-five have been absorbed by others.

Mr. Mackay, however, has a thesis. Ten new banks were established between 1834 and 1841, and two years of "financial stringency" followed. Twelve new banks were established between 1877 and 1888, and five years of financial stringency followed. Here, thinks Mr. Mackay, we have cause and effect. "The root cause" of the 1893 crisis, and also, one gathers, of the earlier 1843 crisis, was "the existence of too many banks, organised in such a way that there was no control of their credit policy."

His contention is *not* that a few banks with numerous branches are safer and more economical—because the cash reserves of each bank are mobile between its branches, while fluctuations in demand can be offset between districts—than many independent banks. Few would dissent from that. But the twenty-six banks of 1893 had nearly fifteen hundred branches. The thesis is that twenty-six was too large a number. "How was it possible for twenty-six banks to operate in 1893 on £150,000,000 of deposits and a population of 2,000,000 when in 1930 fifteen banks require £400,000,000 of deposits and a population of 6,000,000?"

At first sight, this emphasis upon the number of banks is remarkable. Why not consider rather the number of branches?

Why not include the sixty mortgage, land, and building societies and all the other institutions which competed with the banks in the borrowing and lending of money and about which the book, despite its title, tells us almost nothing? The answer appears to be that keen competition for deposits and borrowers among an "excessive" number of banks was the real cause of the undue expansion of bank credit.

The train of events leading to the 1893 crisis resembles those leading to other Australian crises, including the recent one. For some years—1880 to 1888—there was inflation in the sense of an expansion of spending power, especially bank credit. Loans in one form or another flowed into Australia from Great Britain. Land values and sheep prices were very high. Imports into Australia were unusually great. Then wool prices dropped and the flow of investment slackened. It became clear that the banks had been lending too freely on inadequate security. A period of deflation and liquidation followed. An important but neglected aspect is "capital consumption." The land was there, so that savings invested in the purchase of land did not result in new capital equipment, but were largely spent on consumers' goods by the sellers of land. Hence the real capital of Australia failed to increase adequately.

The question is whether all this would have been avoided with fewer banks. I certainly do not think so. With a number of banks, any bank which begins lending more freely loses cash to the others and is checked. Simultaneous action by a large proportion of the banks is needed for any considerable "bank inflation" by the system as a whole. A single bank for the whole country, to take the opposite extreme, has not that check upon its credit expansion. It therefore has greater power, for good or ill. Nor can it fairly be urged that the management of such a single bank or of a few banks would show more wisdom and restraint than the average of the managements of many banks. In the first place, a general credit expansion suggests a common cause, affecting all banks simultaneously. This common cause can be described briefly as over-optimism. It would surely have been as powerful with one bank, or a few banks, as with twenty-six. In the second place, a single bank, or a strictly "controlled" system, is more liable to the pressure of governments and of public opinion, and this pressure is usually against "hampering restrictions" and in favour of inflation. Thus, in my view, Mr. Mackay's thesis cannot be sustained.

F. C. BENHAM

Taxation : Its Incidence and Effects. By H. A. SILVERMAN. (Macmillan & Co., Ltd. 1931. Pp. 360. 7*s.* 6*d.*)

MR. SILVERMAN has attempted the ambitious task of reducing the theory of taxation to plain terms. He has, and claims, the advantage that the enormous increase in public expenditure of recent years has at least greatly stimulated public interest in the whole subject of public finance. But he labours, no less, under the undoubted disadvantage that there is no department of economics in which conclusions capable of practical application are more earnestly to be desired and more difficult to come by. The main effects of taxation are indeed tolerably easy to trace. We know that taxation frequently eats up savings and discourages enterprise; but of the magnitude of the damage thus caused, and of the extent to which this is offset by increased efforts stimulated in those whose objective is the maintenance of a fixed income or the accumulation of a definite capital sum—of these all-important matters we know virtually nothing. Inevitably, the effect of Mr. Silverman's fair and balanced argument must be to open the reader's mind extraordinarily wide—so wide as to leave room for practically any possibility. An increase in income tax, for example, may produce results *a*, *b* or *c*; but then it may equally well produce *p*, *q* and *r*; or even *x*, *y* and *z*. In the absence of any quantitative evidence as to which result is likely to predominate it is no wonder that the taxpayer still feels helpless to pronounce on the wisdom of those who bleed him.

For this, however, Mr. Silverman is not altogether to blame. He has done his best with what is, fundamentally, a very unsatisfactory subject. His arguments are clearly marshalled and generally convincing as far as they go, and his gift for putting complicated things in simple terms is most conspicuous. The ground, moveover, is well covered even in the short space of this book. The author discusses first the general principles of taxation, including current conceptions of equity and economy and a search for that will-o'-the-wisp, taxable capacity. From this he proceeds to an analysis of the general laws of incidence and the effects of taxation which are commonly (but not altogether happily) distinguished from incidence. With the general theory thus clearly stated, Mr. Silverman devotes the rest of his book to a systematic study of the incidence and effects of each of the principal groups of taxes in turn.

On the vexed question of the incidence of income tax Mr.

Silverman comes down, on the whole, on the side of those who believe that this tax stays where it is put. He suggests, however, that an exception to this rule may be found in the income tax of retail shopkeepers selling luxury goods for which the demand is inelastic. But it is not clear how even this case withstands Mr. Silverman's own argument that the price policy which gives the largest return apart from income tax still remains the most remunerative even after deduction of the tax.

On one or two other points the validity of Mr. Silverman's argument may be questioned. On p. 180 he seems to ignore the fact that it is not only because taxation causes a "physical reduction in one's income and capital" that it occasions a preference for safe over risky stocks. Since the tax on actual losses cannot be recovered, a speculative investment in which high gains alternate with losses necessarily pays over a period of years a higher aggregate of income tax than a gilt-edged stock yielding an equivalent average sum. It is in this way that the tax differentiates against the more speculative venture. Again, on p. 282, Mr. Silverman argues that the whole burden of a new tax on land cannot be capitalised on existing owners, since, if it were, there would be no advantage to anybody should the tax subsequently be repealed; which is absurd. This, however, overlooks the fact that the repeal of an old is exactly parallel to the imposition of a new tax. So long as the tax is in force, no owner subsequent to the first suffers anything by it, and the whole burden may, therefore, justly be said to be capitalised on that first owner. In exactly similar fashion the repeal of the tax presents a windfall to the first, but to no subsequent, owner; from which we deduce, not that the amortisation theory is false, but that it is equally applicable to positive and negative changes in taxation.

BARBARA WOOTTON

Some Economic Consequences of the Great War. By A. L. BOWLEY. (London: Thornton Butterworth. 2*s.* 6*d.*)

AT times of general elections it is becoming the custom for each political party to issue a handbook of "facts for speakers." These facts are largely in the form of figures, and have all the appearance of accuracy; but those listeners—and perhaps speakers, too—who may feel qualms about accepting and retailing the selections and summaries of admittedly biased organisations must rejoice in the appearance of this new and somewhat novel addition to the Home University Library.

True, the title is misleading; for the book is essentially a chronicle of such facts and events of the years from 1919 to 1929 as are statistically measurable, and not an analysis of the degree to which the war was responsible for events, whether measurable or not. Many of the events that are recorded of the post-war decade, such as the fall in birth and death rates and the progress of new industries based on technical invention, were not primarily a consequence of the war, as Professor Bowley himself admits; and many of the more important economic consequences of the war are not statistically measured, and some even appear to be happening *after* 1929. In 1931 it is surprising to read (page 20) that "the complete stabilisation of European currencies was only reached in June 1928."

Wisely, Professor Bowley reaches few final conclusions, and confines himself to a very complete yet happily summarised statistical account of the recent progress of the nations. The main headings are Population, Currency and Prices, Capital, National Debts and Taxation, Changes in Distribution of Income, Displacement of Labour, Foreign Trade and Unemployment, and finally Nationalism and Internationalism. It is a tribute to the Government departments concerned and to private investigators —such as Professor Bowley himself—to discover how much information (and information under how many headings) can now be had in exact and fairly accurate numerical form. Additional statistical information might, indeed, have been added of facts no less attributable to the war—the flow, ebb, and then stabilisation of trade union membership, for instance, and the ups and downs in their activity as measured by the severity of strikes; or, again, measurements of the disturbance in the price mechanism by comparison of relative changes in wholesale and retail prices, interest and discount rates, and in other banking statistics. The chapters concerned with labour, and the chapter on Currency and Prices, might thus have gained in cogency; and an additional chapter might well have been devoted to post-war changes in industrial structure and conditions, instead of tucking away paragraphs on rationalisation and hours of labour in the chapter on Nationalism and Internationalism. For these additions, space would perhaps be worth carving out from the nine tables and three diagrams on population. But admittedly, while population is the statistical Tom Tiddler's ground, the statistics of industrial structure, as understood by the American Census of Manufactures, tend in England to be a game of blind-man's buff.

These suggestions are merely in the nature of minor alterations upon a most amazing feat of selection and compression. Its own index, indeed, hardly does justice to the number of subjects the work deals with. Admirable remarks about women in industry appear not only on page 59, as the index tells us, but also on pages 141 to 145 and page 157; and hours of labour are discussed from pages 233 to 237, and tariffs on pages 198 and 199, both without any reference in the index. Finally, author and printer must be congratulated on the neat and logical arrangement of the figures and charts on pages of somewhat limited area. These tables are likely to prove so useful that one regrets their inevitable "dating" with the passage of time—and elections. Would it not be possible in editions of future date not merely to bring the figures up to that date, but to leave blank spaces for the reader to fill in the figures for subsequent dates himself? Bowley's *Economic Consequences* would then, we feel sure, be the standard "speaker's handbook" for many a year to come.

P. SARGANT FLORENCE

The University,
Birmingham.

Om det ekonomiska Livets Rytmik (Rhythmics of Economic Life). By JOHAN ÅKERMAN, Ph.D. Stockholm. 1928.

THE scope of this work is indicated by the following Abstract of the Preface:—

"Dynamic problems have been studied systematically during the last thirty years. Two lines of attack have been attempted; one deductive, the other inductive. The author has tried to work out a synthesis of the two trends of thought. The investigation thus uses Knut Wicksell's *Geldzins und Güterpreise* (1898) and the statistical work of the Harvard committee of economic research as starting-points.

"Just as the theory of economic crises has given way to the theory of economic cycles, it seems now appropriate to pose a still wider problem: the theory of economic changes, being a study of the principal periods in economic life and their inter-relation. It is the author's conviction that a theory of economics which can reconcile the laws of the *ceteris paribus* type with a theory of economic dynamics must start from the empirical facts and—just as in modern physics—anticipate these laws, and build the theoretical reconstruction on the groundwork of real observations.

"After a preliminary analysis of the problem of causal con-

nections in natural and social sciences, the investigation is divided in two parts. The first, critical, part is a synthetical review of the important theories of economic cycles. The purely monetary and the agrarian theories being refuted, the conclusion is drawn that the main problem lies in the sphere of saving and investment, *i.e.* in the community's and the entrepreneur's valuation of present and future consumption. The second, constructive, part puts forth a theory of interdependence between seasonal, cyclical and secular changes. The variation of construction of capital goods—of goods for future consumption—is thus seen to be dependent on periodic changes in valuation, these periods being to a large extent determined by 'objective' factors, such as the year's length, the average time required to construct new capital goods, and different psychological time factors related to the widening of optimism or pessimism. The periodic change of saving and investment within the year, the same sort of variation within the short and the long business cycle, and within still hypothetical secular periods, are thus inter-related in many ways."

The Federal Trust Policy. By J. D. CLARK. (London: Humphrey Milford. Pp. 305. 12*s.* 6*d.*)

The Law relating to Trade Combinations. By A. L. HASLAM. (London: Allen and Unwin. Pp. 215.)

THESE books show how diverse is the attitude of the Law towards trade combinations in countries of similar industrial structure; and yet the diverse conclusions are reached in both cases, those of England and the United States, by the evolution of the "rule of reason" in judicial decisions. In the United States, this rule has the more limited application, because the Courts cannot over-ride the definite terms of a Statute which completely bars *agreements* between competitors; the rule can therefore apply only to the interpretation of the degree of monopoly obtained, or of monopolistic practice exercised, by large combinations. But in England it also applies to agreements, and the most important judgments have refused to regard these as in themselves contrary to public policy. Indeed, the coal industry in England has been organised by law on the model of the Cartels.

Professor Clark's review of the Sherman Act is admirable in its historical arrangement, showing how at each stage the interplay of the influences of public opinion, economic argument, and legal interpretation. He claims for its author a foresight which

the course of events has shown to have been right in political sense and intention, and proper in its formal legal statement. The Act was passed quietly, not in response to agitation; Senator Sherman gives it only brief mention in his biography. It came into prominence because the events occurred against which it had been calmly prepared. These events began with the combination movement of the late nineties, which gave the policy of the Act a conscious public significance, which the debates of the Roosevelt and Taft administrations evolved both positively and negatively—what it was and what it was not—till the judgments of 1911 gave a settlement. The judicial stages of this evolution, from the Knight case onward, are well known; Professor Clark has filled in the background of press activity, administrative measures, and economic discussion. He holds that the Trade Association, and the Trade Practice Submittal as worked under the ægis of the Federal Trade Commission, can give a fair regulation of competition; but rejects the suggestion that trade agreements could in individual cases be passed as valid by some tribunal of enquiry. "What is the public interest should be determined by the legislative body; if it is determined by an administrative body we have that unfortunate uncertainty as to the law which gives force to the objection to government by men rather than by laws, a policy to be followed only in emergencies." The Sherman Act, allowing the merger to exist on its good behaviour, and forbidding the restrictive agreement, has, he thinks, maintained competition and expansion, and "withstood every challenge for forty years as an example of that perfect legislation which . . . exemplifies the American theory of individualism."

Turn to Dr. Haslam's book, and we have the different story of a case-made law, which forbids in terms no kind of structure, has generally refused to consider economic results, but has relied on freedom of contract as the key to what is expedient in trade agreements. The rule of reason has a different meaning when it looks mainly to the relations of parties, regarding "public policy" as an "unruly horse," from what it has when it looks more to the consequences to be expected from particular kinds of organisation. The result is that in England it is much more difficult to say how the next important judgment would go than it is in America. Mr. Haslam inclines to the conclusion that something more definite is required in this country; some more positive custodianship of the public interest. But he has no solution, though he thinks most of the *Kartellgesetz*. Through

the labyrinth of the law, he is a most able and interesting guide, and his book is in that respect a real service to economists.

D. H. MACGREGOR

Combines and Rationalisation in Germany, 1924–1928. By D. WARRINER, B.A. (Oxon.), Ph.D. (Lond.). (London: P. S. King & Son, Ltd. 1931. Pp. vii + 226. 10*s*. 6*d*.)

MISS WARRINER carried out this study while holding, first, a research studentship at the London School of Economics and, afterwards, the Mary Somerville Research Fellowship at Somerville College, Oxford. These two appointments are brilliantly justified in this book, which, mainly based on official inquiries, will long hold a place as a source of information on the problems of business organisation in Germany after the inflation period. It is difficult to praise the book sufficiently without appearing to exaggerate, and even if this reviewer were to confine himself to stating the number of marginal "scorings" he has made on the pages—distinguishing single from double and multiple "scorings"—the figure would seem incredible. The difficulty of dealing with the book is enhanced by its concentration; the argument is confined to 158 pages only, while 50 pages are occupied by appendices of statistical and other information relating to the industries dealt with in the main text, 14 to a bibliography of German sources, and 3½ to an index which might advantageously have been much fuller.

The first chapter on "industrial and financial setting of the combine movement" draws attention to the differences in Germany between the "heavy" and the "finishing" industries. The former, characterised by high and invariable fixed charges, were largely combined before the War for technical reasons and through the necessity of overcoming the high transport charges arising from the location of businesses on inland coal-fields. The "finishing" trades, on the other hand, had low overhead costs, were only loosely organised, if at all, and worked for markets "usually limited to a special, fairly constant demand"; they employed, also, a relatively high amount of working capital. The banks supplying long-period capital naturally favoured the older and larger firms of the heavy industries. During the inflation period all businesses made issues of share capital, and where those were invested in fixed plant, as in the heavy industries, the equipment remained even after the subsequent writing down, but the finishing industries, which used their new issues as working capital, lost much if not all and their credit position was gravely

impaired. The financial situation forced all trades rapidly to organise in order to strengthen themselves, and herein "lie the causes of the formation of the typical finishing organisations, the loose groups of interests described as concerns, and the condition cartel, shortening the terms of trade credit" (p. 11). (A "concern" is "any financially interconnected group of firms" (p. 14)). Through lack of adequate production statistics it is not possible to estimate accurately "the extent of market control," the theme of Chapter II, but Dr. Warriner estimates that out of a total industrial production valued at 35 milliard marks in 1926, the aggregate output controlled by cartels or trusts was of the value of 21 milliards. The total includes completely controlled output in coal, "iron and steel, iron ore," non-ferrous metals, and chemicals, 80 per cent. in the electro-chemical industry, one-half in "iron and steel goods" and engineering. Among the notable cases of extension of control are the organisation of the scrap steel trade, the advance of the paper trade in controlling the marketing of its raw material and of its finished product, and, in the generally weak textile group, the emergence of trusts or cartels in linen yarn, hemp, and linoleum. Combination in the highly important trades of food, clothing, building and contracting, and timber, which employ about 5½ million out of the 12½ million operatives and salaried staff engaged in German industry, and whose principal cost is wages, is probably negligible as an efficient force.

The author's views in the third chapter, on "the extent of rationalisation," will surprise many who use that hard-worked word in a loose sense, for she declares the scheme carried out by the chemical trust to be the "only example of genuine rationalisation." Rationalisation in her sense "connects the processes of works reorganisation and scientific management usually associated with the name of Taylor, the processes of standardisation and specialisation associated with the name of Ford, with the industrial combination movement in both its aspects of financial amalgamation and price control. The novelty consists in the combination of the two ideas—regrouping as a preliminary to reorganisation" (p. 29). The coal industry is not rationalised in this sense, for the problems of inefficient mines and excessive output can only be settled by unitary control, which "is not possible, since the mines are the property of the iron and steel concerns." The Steel Union is powerful and has carried out some internal reorganisation, but "for thorough rationalisation, unitary financial control of the greater part of

the industry is necessary, and this the trust does not possess, nor is it capable of acquiring it" (p. 43). Striking results have been secured in some finishing trades which, having low overhead costs, can easily regroup their works, *e.g.* some branches of engineering, linoleum, clocks, pottery. Chapter IV, on "the Trust and the State as rationalising agent," regards the cartel as "not as a rule a suitable instrument for reorganisation, except as a preliminary, a guarantee that the work done will not be wasted. . . . The superiority of the trust as a rationalising agent is now generally recognised" (p. 48). "German conditions have, however, produced a composite typical organisation—the cartel, whose members are a few large concerns, differing in size, but not differing so much as to compel absorption of the smaller members" (p. 50); this type avoids both over-investment and over-capitalisation and, with the aid of the trade association, can study the trade cycle with a view to stabilisation. Where reorganisation would bring about a return to profitableness, but the industry for internal reasons is unable to reorganise itself, Miss Warriner considers that a case is made out for State interference in the form of compulsory amalgamation and rationalisation, and in this regard discusses the cases of potash, cement, coal, cigarettes, rolling stock, etc., where such interference was either applied or asked for in Germany.

"The achievement of the combines," the theme of the fifth chapter, occupies as much space as the preceding four chapters, and only a few fragments of the valuable discussion can be referred to. Cartel and trust, says the author, "can be credited with definite success in attaining two objects—cost reduction and extension of the market" (p. 64). These special cases of costs are considered. High overhead costs require large production units and lead to cartels, but the enhancement of profits stimulates over-investment in the industry; this is exemplified in the cement trade, where combination has been possible only in recent years and is now threatened by the production of cement by steel-works. Transport costs are the special problem of mining, and the coal industry, after pressing the development of canals, is now pushing a grandiose scheme for the transmission of gas from the Ruhr to the industrial districts and ultimately to the whole Empire; as the industry is unable to carry out a comprehensive scheme of closing down unwanted mines, its salvation can only be found in further concentration on the by-products of coal. The cost of working capital has been reduced to some extent in the textile trades by large "concerns," of

which an outstanding example is the Blumenstein jute trust under the Bank für Textilindustrie; the shortening of trade credit by a cartel is another means, and the brick cartels obtain capital cheaper by mutual guarantees. As for market policy, stabilisation and regulation have always been the chief aims as regards the home market, but a cartel in fixing quotas for its members must not leave out of account its future expansion. "German industry in general appears to rely much less than formerly on cartel policy as an instrument for pushing export sales. . . . The effect of the growth of syndicate organisation in the finishing branches must be more than outweighed by the steel cartels ceasing to dump the 'A products'" (p. 86). In the case of many products export prices are now controlled by international agreement. Engineering has gone far in the centralisation of sales for export, but the small industries of clocks, musical instruments, toys, pottery, glass, and leather, which have to a great extent lost their formerly important export markets, find organisation for export difficult. The typical new industries of aluminium, artificial silk, and synthetic nitrates have high overhead costs and an expanding market; they are monopolistic and, controlling prices, have financed expansion out of accumulated profits. Neither in aluminium nor in artificial silk has control of the international market been secured by the various national interests, but, as a price-cutting struggle would be ruinous, agreement must be reached as in the nitrate industry.

The sixth chapter, on "the effect of the combination movement on general industrial conditions," is of great importance. "The cartel's tendency to raise prices, the trust's tendency to self-finance, were obvious from the beginning of the movement in the 90's" (p. 101). To-day the situation is that "the combine takes over the risk-bearing function from the capital and commodity markets, thus taking over at the same time their regulating function and becoming a self-governing entity, which, far from merely fixing prices and striving to counteract forces already acting on the market, controls the working of the forces themselves. Therefore the view implicitly held is that prices should bear the cost of expansion and in old industries the cost of closing down, a doctrine incompatible with the type of economic theory which analyses capitalism as a system regulated by laws operating in the market" (p. 103). Market control has increased since the War by development of sales associations, eliminating the merchant both for home and export trade. The adjustment of prices to costs "has disturbed the pre-war inter-relations of business

fluctuations, dislocating raw material prices from their close connection with general business conditions" (p. 109). The "flight of capital to real values" in the inflation period and investment by foreign borrowing in 1926–8 have resulted in "a diminution of the power of the banks" (p. 116). "If the combine takes over from the market the function of financing its own expansion, the risk-bearing function in investment in new industries must be undertaken also" (p. 123). This is now taking place, for "the expansion of the new industries, synthetic nitrates, artificial silk, low temperature carbonisation and hydrogenation of coal, has been financed by the consolidated coal and chemical industries jointly and individually" (p. 122). "There can be no principle of co-ordination," declares Miss Warriner, "between co-ordinated industry and co-ordinated finance; in the incalculable interaction of the two lies the complexity of the German economic situation" (p. 124).

In Chapter VII, "the problem of State policy," the author discusses the ineffectiveness and inappropriateness of the Cartel Decree of 1923, the reform of company law, and the proposals of the Jurists' Conference of 1928. Chapter VIII, on "the problem of theoretical analysis of the combine movement," discusses the classical doctrine of monopoly and Schumpeter's views on the dynamic character of industry, and finds both of little help. Behind the opposition of the two methods of approach "lies the theoretical antinomy between theory which treats the dynamic elements as friction and theory which, in giving the dynamic forces their proper treatment, loses all general principle. So long as it persists there can be no consistent attitude to the combine movement. At present the two methods of approach are roughly equal in their influence on economic thought" (p. 158). But thirteen pages are too few for this subject.

HENRY W. MACROSTY

KAPITAL UND KAPITALISMUS. Vorlesungen gehalten in der Deutschen Vereinigung für Staatswissenschaftlich Fortbildung. Edited by BERNHARD HARMS. (Berlin: Reimar Hobbing. Vol. I, pp. 513; Vol. II, pp. 511. 1931.)

IN the autumn of 1930 the German Association for the Advancement of Education in the political sciences organised in Pyrmont a course of study on various aspects of Capital and the Capitalist system. Specialists in many departments of practical life as well as distinguished teachers of Economics participated in the course, and the fifty-four lectures that were

delivered have been reproduced in two stout, well-printed volumes, which Prof. Harms, of Kiel, has edited.

The course was well planned. An introduction (four lectures) surveyed the ground to be covered; the course proper began with an account of the part played by Capital in the Capitalist System (six lectures); this led logically to the consideration of the growth of capital (five lectures) and the market for Capital (ten lectures), including a review of Banking, with special reference to Germany, of Central Banks and of the Bank for International Payments. The utilisation of Capital in German agriculture and various industries (including aviation) formed the fourth section of the course (eighteen lectures); the destruction of Capital was the subject matter of five more lectures, and a consideration (six lectures) of the new attitude to Capital in connection with the formation of new social systems (*e.g.* Soviet Russia) concluded the series.

It is evident that these two volumes, covering as they do a wide field, are a mine of information on very many problems arising out of Capitalism in general and the Capitalist system in Germany in particular. The lectures, which are popular in style, will be read with no little interest by those who are beginning their researches into the many-sided aspects of Capitalism. Not a few show a good deal of skill in the art of compression. Yet, summaries though they are, the lectures either stimulate thought or furnish information.

Where there is so much that may be warmly commended it is invidious to direct special attention to particularly good pieces of work. But most of his readers will agree that the opening lecture, by Prof. Willy Hellpach, of Heidelberg, is a delightful essay, weighing up the prospects of aristocracy, the bourgeoisie and the collective way of life. His analysis of the attitude to Economic activities of the Middle Classes shows knowledge touched with humour. Prof. H. de Man, of Frankfurt, in considering the relations between Capitalism and Socialism, has many a shrewd tilt at Marx, although he holds him in high esteem as an economist. Prof. de Man possesses the gift of expressing an illuminating idea in a brief sentence or two. Thus, he explains that great souls combine criticism and comprehension in an eminently high degree. Marx hated the Economic system around him, but he comprehended it none the less. "No one understood Israel better than Jeremiah. No one understood the Roman Empire better than Augustine. No one understood the Middle Ages better than Luther. No one understood the

French Revolution better than Napoleon. No one understood Capitalism better than Marx." Prof. de Man, too, engages in criticism of the Capitalist system. But on the question of Capitalism *v.* Socialism he refuses to be a prophet. He holds that it is the business of scientific research to analyse problems, not to foretell the future.

Of Sombart's two lectures on the meaning and development of Capitalism, it need only be said that they will delight all those who are acquainted with his writings. Another very useful lecture is Prof. Saitzew's, of Zürich, on the various meanings of the term Capital from Adam Smith's time to our own. Students will agree that here is as comprehensive and clear a survey as any they can find of a theme which has a voluminous literature in many languages.

If these are four outstanding lectures in the sphere of theory, Dr. Felix Somary's two lectures on the International Money Market rank with them in the sphere of descriptive Economics. The whole of the second volume is devoted to this field, more especially to present-day conditions in Germany. As an introduction to a problem fraught with extraordinary possibilities this second volume will be found exceedingly helpful.

It was well worth while bringing these fifty-four lectures within reach of a larger audience than assembled at Pyrmont. The editor would have added to their usefulness by providing the two volumes with an index. M. EPSTEIN

An Outline of Modern Knowledge. (London: Victor Gollancz. 1931. Pp. 1103. 7*s.* 6*d.*)

THIS compendium includes three articles of special interest to economists, those of Mr. M. Dobb on the "Introduction to Economics," of Professor Gregory on "Finance," and of Mr. Cole on "Industrial Organisation." All the contributions to the volume have high authority.

Mr. Dobb's approach is historical. One of his central theses is that economics "had its origin and derived its force as a direct apologetic of capitalist individualism." The impetus came from the "natural law" philosophy of the age. He seems clearly to mean that the Physiocrats assumed that "natural law" governed the economic universe, that the task of economic analysis was "to discover and postulate natural laws," and that therefore they played "the historical rôle of intellectual champions of the new capitalist order." Although "English economists followed

Adam Smith in expounding that imposing symmetry of economic harmonies which would come to birth if it were not suffocated and strangled by an unnatural degree of obstetrical attention," it is not clear whether Mr. Dobb means that Smith played a rôle similar to the Physiocrats in the genesis of economics, for Smith "was much more concerned with composing a commentary on specific economic questions and in advancing a practical thesis than in establishing a conceptual unity." The exception suggests that in a fuller exposition Mr. Dobb's view would be less dogmatic.

Another central thesis is that "since modern economic theory poses a different set of questions from classical Political Economy, the former is not competent to pass judgment on most of the wider issues with which the latter was concerned." The difference seems to be that the "new economics" (the marginal utility school) concentrated on a theory of price, its purpose being "to postulate the series of equilibria which would result under various possible sets of conditions," while classical economics was concerned with the conceptions of "real cost" and "surplus," with the "principle of intrinsic value as a key to the problem of equivalence." It was left to Marx to clear the Ricardian system of its "natural law" framework and it was he who "crowned the classical edifice." The short treatment of Marx's solution of the problem of the relation of profits to exchange value does not substantiate the claim.

The discussion of modern economic analysis ends by conceding that it "seems to have developed a technique which may well prove of permanent value." Mr. Dobb's critical insight suggests again that he would grant most of the case of those who are interested in economic analysis as such. The violence of his disagreement diminishes as his "normative" interest recedes and as he accepts the "limited enquiry" with which the economist is content.

Professor Gregory's task is easier, though still difficult enough. He describes the financial mechanism and the interconnections of public finance, company finance and monetary and banking systems. The article is a model of lucidity. There is an instructive running comparison of England with the United States. Judgments are not excluded. For example, refreshing scepticism is shown with regard to the belief that high income taxes and death duties destroy the spirit of enterprise and that the net effect of the "dole" is demoralising. One doubtful dictum may be mentioned. Surely it is an exaggeration to say that 1929 stock

prices in America "did not seem absurd, because there was no scientific standard by which to measure what they *ought* to be worth." The economic reasoning behind the conception of a normal number of years' purchase is not made nugatory because an "irrational" public continues to drive prices up and "yields" down. The economist does after all label the public irrational.

Mr. Cole first analyses capitalism in order to prepare the ground for discussing the socialist alternative. The most important connecting links between capitalism and socialism are in the growth of mere salaried managers in capitalist organisation and of corporate savings. These minimise the changes necessary in socialisation. Joint control is impossible under capitalism, and Mr. Cole does not seem to hold out much hope for it under socialism. Most hope is to be derived from the psychological effect of the method of choosing the directors of industry upon the workers in obeying orders. The socialist makes different assumptions about human nature from his opponents: he is an economic rationalist. He also assumes gradual changes in human motives with the removal of obstacles inherent in the capitalist system.

R. Opie

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Arbitration Principles and the Industrial Court. By M. T. Rankin. (P. S. King. 1931. Pp. 178. 7*s.* 6*d.*)

This book seeks to disentangle whatever principles lie behind the decisions given by the Industrial Court in the cases submitted to it in the past twelve years. The author holds that in all wage disputes three main considerations must arise. "First, is the wage offered a subsistence wage? . . . Second, is the wage offered a fair wage"—that is, in comparison with the rates paid for comparable work in other industries; and, third, "how much higher than these standards *can*, not *should*, the wage be?" Further, the answer to the last question must, she argues, in the last resort depend, not on the capacity of the particular industry in question to pay, but on the state of industry in general.

Miss Rankin does not find, however, that the decisions of the Industrial Court show much appreciation of these principles or even much consistency with themselves. Dividing her history into three periods she finds that in the first, when prices were rising and prosperity on the increase, the Court was concerned

chiefly to push wages up in harmony with the rise in the cost of living; in the second, when prices were still rising but industry was already on the down grade, the Court held that "some compromise is necessary between the mechanical regulation of wages on the basis of the cost of living and the regulation of wages solely by reference to the state of the market in the particular industry which might be under consideration"—which attempted compromise Miss Rankin dismisses as an "attempt to split the difference between two losses, and as a result to show an absence of loss if not indeed a positive gain." In the third period, when both prices and prosperity were falling, the Court seems to have proceeded chiefly by way of withdrawing whatever increases were last given if the reasons for which they were granted were no longer operative.

Throughout, Miss Rankin finds, confusion has been made worse confounded by the failure of the Court to distinguish between the policy of relating wages in one industry to the wages of similar workers elsewhere (the craft principle), and the entirely different plan (the industrial principle) of regulating the wages of all workers in an industry by the prosperity of that industry alone. The latter, she holds, is a highly dangerous proceeding, at least in those industries which have anything approaching a monopoly (or in non-industrial occupations such as Government service), since it enables the workers in one fortunate group of industries to exploit those of their comrades who are less happily placed.

Miss Rankin, in short, chides the Court roundly throughout. Her analysis is acute and original, though at times less condensation would have made it easier to follow. It is possible (only a first-hand study of the Court's decisions could give the answer) that the Court has been groping along lines of its own less blindly than the book suggests. But in any case Miss Rankin's criticism is a useful piece of work. BARBARA WOOTTON

The Slum: Its Story and Solution. By HARRY BARNES. (London: P. S. King & Son. 1931. Pp. xv + 398. Price 12*s*. 6*d*. net.)

THE slum problem can hardly be treated adequately without going largely into the general question of housing; and thus Major Barnes' book has a wider range than is covered by its title. The book falls into two parts. The first is historical, dealing with the growth and development of the problem up to the eve

of Burns' Housing and Town Planning Act of 1909, whilst the later narrative, covering the last two of the author's Eight Stages, is more general in character, and the Acts from 1909 to 1930 are not treated in detail because " they have all been so well commented on and elucidated." The second part, entitled the Solution, deals with the practical problems of to-day, and the methods required for meeting them, ending with the optimistic conclusion that " we really mean business and have found the solution to the problem of the slum: it can be done, it only needs to do it."

The historical part of the work is notable for a clear presentation of the complicated issues involved, though this is not always assisted by the large number of very small chapters, which, with a similar fondness for short paragraphs, has involved some waste of valuable space. The distinction between the three main lines of development in the Shaftesbury (1851), Torrens (1868) and Cross (1875) Acts, and concerned respectively with the provision of houses, the reconditioning of insanitary houses, and the clearance of insanitary areas is well made and should assist readers to get a good grip of pre-war housing policy, the three things being finally combined in the Housing Act of 1890, and expanded by the addition of Town Planning in the Burns Act of 1909. The author too makes the point that whilst the Shaftesbury Act was for a long time largely a dead letter, its principle has formed the main basis of most post-war housing legislation.

The author, moreover, has added to the interest of his treatment by associating it at various stages with prominent reformers, Chadwick and Shaftesbury, Torrens and Cross, Octavia Hill and Nettlefold. At times, indeed, he is apt to under-estimate unduly the part taken by public authorities. Thus his emphasis on the apathy of Local Authorities towards reconditioning needs to be qualified in view of the fact that, just prior to the War, compulsory action was dealing with some hundred thousand houses a year in this way. But his treatment of leading figures is admirable, notably the comparison of Thompson and Nettlefold, and the sketch of Octavia Hill. Particularly apposite to present conditions is his remark that " one day we shall arrange to be ready with work for every man and give him nothing if he will not work; we cannot do the latter without the former."

The inclusion of Chadwick brings out clearly the fact that the housing problem began as part of the problem of public health. It only gradually emerged as a separate problem, an emergence which the author identifies with the Torrens Act,

though the beginnings of separate housing legislation had been made by Shaftesbury. Further, the very serious abuses that accompanied the era of non-interference and continued for long afterwards are forcibly brought out and remind us of what "the beneficent order of natural liberty" has meant in practice to the lives and homes of the poor. Moreover, the general difficulties and complications of the question are ably explained, as, for instance, in the chapters on the Legislation Tangle and Housing Powers.

Indeed, the nature of the historical sketch causes regret that it was not carried through to 1930 instead of 1908. The later Acts have, indeed, as Major Barnes points out, been widely discussed, but it is doubtful if any clear and brief sketch of them exists, suitable for the general reader, and such as he has himself provided for the earlier years. Moreover, avoidance of the waste of space involved in short chapters and paragraphs would have enabled the addition to be made without increasing the bulk of the work, whilst parts of the treatment would have gained in force, and possibly in clearness, by grouping several smaller chapters into a single one.

The second part is concerned partly with treatment of certain special problems, such as back-to-back houses and repairs, and partly with developing the principle of providing "that antithesis of the slum, the adequate dwelling for the separate family," and laying down suitable standards of adequacy. Incidentally, the author speaks in high terms of the Greenwood Act of 1930 as marking a real advance on any previous legislation, following Octavia Hill in holding that the cause of the evils of the slum is mainly in the habitation and only to a small degree in the habitant, and emphasises that the slum itself will create a slum character. He also criticises the undue niggardliness in providing medical officers with staffs adequate to their duties, which may be contrasted with what appears to have been a tendency in the past to excessive generosity to holders of insanitary property. Compare, for instance, Nettlefold's statement, regarding Part I of the Housing Act of 1890, that "certain persons bought small properties and let them fall into bad repair, so that they might be bought compulsorily at high prices." This difficulty has since been removed, and the tendency in the Acts of 1919 and 1925 was rather in the opposite direction, whilst the Act of 1930 seems largely to have secured a fair balance between the interests concerned.

Major Barnes' book should have considerable value to housing

students and the general public, especially if it could be rendered more compact in a later edition and certain errors of detail corrected, such as a reference to the Poor Law Commission of 1836 and the spelling of Forster of the Education Act of 1870 as Foster. One rather doubts, also, if Major Barnes' Moralist of the time of the Poor Law Amendment Act really typifies the ideas of that epoch. But he has provided a narrative of the history of the problem up to 1908, useful criticisms of both measures, and interesting suggestions for the future.

N. B. DEARLE

In the Heart of South London. By THE RIGHT REV. C. F. GARBUTT, D.D., Lord Bishop of Southwark. (London: Longmans, Green & Co. 1931. Pp. viii + 152. 3*s*. 6*d*.)

TWENTY years have elapsed since South London life was so vividly described in *Across the Bridges*, to which this book forms an admirable sequel; and it has great value, not only on its merits, but as permitting an assessment of the progress achieved in the intervening critical years. Limitations of time and space have prevented as full a treatment as Mr. Paterson's, but the ground is adequately covered, and the narrative, always interesting and humorous, is, when circumstances permit, delightful, as in "Oases of the Desert." The book deals first with the stages of the South Londoner's life—Childhood, Rising Generation, Men and Women—and then with the Problem of Overcrowding, the two chapters on this giving an excellent picture of the general housing question.

Light and shade are mingled, but the light predominates: the evils depicted are mostly no worse than in the past, though the growth of gambling is an exception. The good—and there is much good—represents a clearer advance. Worst of the blots, bad housing, is directly fruitful of evil, both moral and physical, and often proves a serious drag on the outlook of those affected. "The middle-aged man and his wife may become effortless and apathetic," a tendency which was strongly emphasised in *Across the Bridges*. Wages again are still often unduly low, and, "whether the man is employed or unemployed, there is a struggle to make ends meet," whilst some families on unemployment benefit "just manage to ward off starvation," and this (May Committees, please note) at 1931 rates and prices. Excessive rents appear sometimes to aggravate these difficulties.

Nevertheless, much has been achieved. Real wages have definitely risen, and the unskilled labourer "has more to spend,"

thus enjoying, perhaps for the first time, a standard of living and not of mere existence. The people, including the unemployed, are better fed, clothed and educated, and, whilst alive to possible evils of the insurance system, Dr. Garbutt emphasises its benefits, compared with previous conditions when the unemployed and their families were often half starved. Education, again, is increasingly appreciated, " now that a generation of parents has passed through the schools," and summonses for non-attendance are one-ninth of what they were; whilst the splendid work of the teachers receives a just and generous tribute. " And most hopeful of all are signs of a new and dim resentment of their lot," creating a desire to strive for better things, particularly better housing. Indeed, perhaps the most cheering feature of this admirable little book is the evidence that the improvements already achieved in standards of life are creating, as Adam Smith predicted, ambitions for further progress to a life that is better still.

N. B. DEARLE

International Migrations. Vol. I. *Statistics.* Compiled on behalf of the International Labour Office, Geneva, with introduction and notes, by IMRE FERENCZI and edited on behalf of the National Bureau of Economic Research by WALTER F. WILLCOX. (New York: National Bureau of Economic Research, Inc. 1929. Pp. 1112.) Vol. II. *Interpretations.* By a group of scholars in different countries, edited on behalf of the National Bureau of Economic Research by WALTER F. WILLCOX. (New York: National Bureau of Economic Research, Inc. 1931. Pp. 715.)

THE National Bureau of Economic Research is to be congratulated on the publication of these two large volumes. The modern migration movement, which may be said to date from the discovery of America, and which reached its maximum about the end of the nineteenth and beginning of the twentieth centuries, is to a large extent a movement of Europeans to the great spaces of North and South America, South Africa, Australia and New Zealand, but we are apt to forget that other migration movements, smaller in volume but by no means unimportant for the political and economic development of the countries concerned, were taking place during a part of that period. There has been, for instance, a movement from Asia to the lands which the white man had already commenced to colonise, a movement of Asiatics from one part of Asia to another, and, finally, a movement of Europeans

from one part of Europe to another. These latter so-called "continental" movements have, in fact, become particularly important in the post-war world, as the older "inter-continental" movement has to some extent played itself out and shows unmistakable signs of decline.

The reasons for this decline are numerous and are not, of course, examined in any detail in the two volumes before us. That is not their purpose. What they set out to do is to provide: (1) the statistics of all migration movements from the earliest recorded figures in each country down to the present day, and (2) an interpretation of those statistics by scholars familiar with the migration movement in the countries they write about.

The first volume consists of a large mass of statistics arranged country by country and a number of international tables, together with descriptive notes on each of these two sets of tables. As far as possible information is given not only with regard to the volume of the movement, but also its direction and the occupations, sex and ages of the migrants. The industry and ingenuity shown by the compiler in discovering old statistics in all sorts of out-of-the-way places are most praiseworthy, but the presentation of these statistics must have caused very great difficulties. Unfortunately, migration statistics—like many other statistics covering such a long period—are not comparable from one date to another even for one particular country, and are still less comparable as between different countries. The methods of compiling the statistics vary, and in particular different definitions of an emigrant and an immigrant are adopted. No international agreement has been reached even now on the definition of a migrant, although the most strenuous efforts were made at the Rome Conference of 1924 and elsewhere to find a uniform definition that everybody could agree to. Finally, it must not be forgotten that statistics have in recent years been collected with much greater care and accuracy than was the case in the earlier years covered by this study.

These tables must therefore be considered more as the raw material for other investigators than as forming a complete whole in themselves. It is even open to question whether there is much scientific value in the *international* tables which give the appearance of comparing things which are not really comparable. Thus the British statistics up to comparatively recently have referred not to emigrants but to passengers as a whole. The German statistics refer at one time partly to passengers and partly to emigrants, and hardly any set of figures means the same thing

throughout the period covered. The omission of these tables would not have destroyed the value of the national tables, which are a mine of information for all investigators in this field.

The accompanying notes are interesting, but unfortunately they show signs of hasty preparation, and contain a number of errors and loose statements. Thus, for example, Newfoundland has never formed part of the Dominion of Canada (p. 85), and in Great Britain it was not " the local authorities " but only the poor law authorities that were authorised to assist emigration in the middle of the nineteenth century, and this assistance could be granted only to poor persons whether in receipt of relief or not. More serious is the statement that " the fact that there is on one side a thickly populated territory with an intensive economic régime, and on the other side whole continents with small populations and great economic possibilities, is bound to lead to increased migration." This may, of course, be so, but it is a dogmatic statement which is highly controversial and is out of place in a statistical presentation of past movements. It would be very easy to produce strong arguments on the other side. It is practically certain, of course, that oversea migration will increase from the very low level (a minus quantity in many countries) to which it has fallen during the economic depression. But whether it will increase much or at all beyond what it was in 1920–25 is problematical. It might be argued that technical progress makes proportionately less labour necessary and that the population will increase fast enough in the immigration countries themselves to meet most of their requirements. Again, rationalisation has now reached agriculture, and the introduction of the combine has made a vast difference to the demand for labour in that field. Where, then, is the greatly increased migration going to? On the other hand, it is interesting to note that, according to the statistics available, about 55 million people emigrated from Europe to other continents from 1820 to 1924, and that of these emigrants about 36 million went to the United States. These two figures are very approximate and may be very inaccurate, but the proportion that migration to the United States bears to the whole movement is probably fairly correct.

It is, however, to Volume II that we turn for the interpretation of the movement which is depicted in the tables of Volume I. The different chapters are naturally of varying merit. Two of the most interesting are from the pen of the editor himself and deal respectively with the increase in the population of the earth and of the continents since 1650, and with immigration into the United

States. They are both very well done. One of the great difficulties of the former investigation lies in the uncertainty which exists with regard to the population of China even at the present day. Professor Willcox examines this problem in considerable detail and comes to the conclusion that the Chinese return of 1910 is probably the most accurate available. He therefore puts the population of China at 342 million instead of the much larger figure adopted by many authorities on the subject. On this basis he reaches the conclusion that the population of the earth has increased from 465 million in 1650 to 836 million in 1800, and 1,820 million in 1929. A further table giving the percentage distribution continent by continent seems to show that the percentage of the world's population in Asia has been steadily declining for a long time past and amounts at present to about 52·4. In his second chapter Professor Willcox makes a fresh examination of Francis A. Walker's famous statement that foreign immigration into the United States "amounted not to a reinforcement of our population but to a replacement of native by foreign stock." This view is often accepted very uncritically by modern restrictionists across the Atlantic, but Professor Willcox brings forward strong evidence in support of the thesis that neither Walker's statement nor the contrary view that immigration increases the population by an amount equal to its number is accurate; the truth lies somewhere between the two and it is impossible to determine where.

It is clearly out of the question to refer in any detail to all the chapters in this book. Apart, however, from the description of the movement out of or into the different countries, which is their main purpose, a number of general problems are discussed incidentally which merit special consideration. Thus, Dr. C. E. Snow in his chapter on emigration from Great Britain says that for a considerable part of the nineteenth century the motive controlling British emigration was mainly the force expelling people from their own country and not the force attracting people to other countries. This seems to be put too dogmatically. Unless there is a good reason for leaving one's own country it is quite obvious that people will not emigrate. On the other hand, unless conditions are favourable overseas they will still not emigrate however strong the forces are at home, and it has been found that the fluctuations in emigration are due far more to the conditions in the country of immigration than to those in the country of emigration. Sir Robert Giffen pointed this out in connection with British emigration in 1885, and it is likely that similar influences were at work in earlier years. Moreover, Dr. Harry

Jerome in his book on *Migration and Business Cycles* came to the conclusion that in the United States even between 1820 and 1890 "the cyclical fluctuations in immigration are to a large extent a reflection of the industrial conditions of the United States, the effect upon immigration evidently becoming apparent in something less than a year." It is also of interest to note that Mr. Adolph Jensen of the Danish Department of Statistics comes to the same conclusion for emigration from the Scandinavian countries from 1866 onwards.

Dr. Burgdörfer of the German Statistical Office tackles the difficult problem of the money value of emigration. In this question we have first to decide whether emigration is really a loss or a gain to the country from which it goes. Judging by the amount of effort and money spent in encouraging the movement, emigration should be considered rather as a gain. On the other hand, it is argued that the country of emigration loses because the emigrants are among the most active and ambitious elements among the population. Even in the immigration country nowadays the advantage of new producers to a community suffering from severe unemployment due to technical progress or other causes is by no means an unmixed blessing. These questions are social and political as well as economic, and it is doubtful whether much value can be attached to an elaborate investigation of the exact money value represented by an emigrant.

Finally, reference may be made to Professor Hersch's interesting discussion of the migration of Jews. The material is not particularly new because, as a matter of fact, the subject had already been dealt with more fully by the author himself before the war. But this chapter is probably the best short description of the history of the modern Wandering Jew to be found in the English language, and it brings out a number of striking facts. What is new is the reference to Palestine, since immigration into Palestine is, of course, mainly a post-war movement, and it is worthy of note that Professor Hersch gives reasons for thinking that there are insurmountable difficulties in the way of the establishment of Jews in that country and that Palestine is ill-fitted to absorb an immigration, however small, of non-agricultural elements.

Generally speaking, these two volumes provide investigators with an indispensable source of information on migration movements during the nineteenth and early twentieth centuries.

D. CHRISTIE TAIT

Essays on Population and Other Papers. By JAMES ALFRED FIELD. (University of Chicago Press. 1931. Pp. xviii + 440. 16*s*.)

THE early death of Professor J. A. Field was a shock to his friends, a loss to scholarship and deprived the University of Chicago of one of its greatest teachers. So much of his work, published and unpublished, as could be assembled, has been gathered together in this volume. Great care has been expended by the editor, Mrs. Hohman, upon her task, which was not easy. Three of the papers printed here have been reconstructed from lecture notes; the longest and most important essay was left incomplete by the author and has been supplemented by the editor from other material. Dr. Bonar contributes a foreword and the editor a brief memoir.

Field is best known for his essay on the early history of the birth-control movement in England which was published in 1911. In this essay he opened up an important field of research which has since attracted others of his countrymen. Twelve out of the fifteen pieces included in this volume are related to various aspects of the population problem. It seems that he was early attracted to these subjects. The opening essay in this volume dates from 1906 and was written when he was an instructor at Harvard. It is characteristic of the man that it was never published. It is a long and valuable essay on the Malthusian controversy in England. It is admirably written and exhibits a profound acquaintance with a large range of literature. Like all his work it is more than excellent scholarship. Field was profoundly interested in the population problems of his own day as they affected the lives of men and women around him. He took an active part in the various movements, birth-control, eugenics and so on, and this living human interest shows through his historical work. There is a remarkable mixture of learning and humanity in all these pieces.

Field was not, and had no wish to be "productive." What he said of a colleague may well be said of himself. "He was not a person of results so much as a person of development. His thinking was a process and not a matter of conclusions. Had he lived to twice the length of his life, he would perhaps have done not very much more than he did do to indicate to those who came close to him what manner of scholar he was, or to define the way in which he believed that the work in which he was engaged should be carried through." After graduating at Harvard in

1903 he worked there for a little time as instructor. In 1908 he accepted a post at Chicago, where he remained until his death. He was a great teacher, but his influence extended far beyond the class-room and was felt all through the undergraduate body. He took an active part in the civic life of the city and did not a little to raise the respect in which the university was held. Altogether a man of most unusual qualities who can ill be spared.

A. M. CARR-SAUNDERS

The Economic History of England. II and III. *The Age of Mercantilism.* By E. LIPSON, M.A. (A. and C. Black. 1931. Pp. 464 + 542. 30*s.*)

THE form of this work is admirable. Indeed, if the voluminous notes had been relegated either to the end of the chapter or the volume, it would have made chaos for the reader. So too is the arrangement, as a whole and within each chapter. The work concludes with a full list of authorities and a full index. The index is mainly analytical and therefore in the main of value.

Mr. Lipson now continues his Economic History of England, (of which Vol. I, The Middle Ages, has passed through five editions) into what Cunningham called Modern Times. The two new volumes correspond to Cunningham's single Vol. II, The Mercantile System. It is not, however, easy to say where the present work begins and ends. Most of us would say that it is a general economic history of England from the Age of Elizabeth to the Eve of the Industrial Revolution, say 1550 to 1750. But the author, in his enthusiasm for antecedents of fact and anticipations of thought, often pushes back in his detail to mediæval times; and of set purpose ends on a very ragged front. For he is always anxious to avoid the suggestion that the Industrial Revolution was in fact a revolution. This sort of terminus is fundamental to the author's point of view, but the beginning surely would have been stronger if, instead of plunging at once into the four stages of evolution, with that mythical Stage One of "household" industry, he had drawn in firm outline a few of the fundamental differences and links between mediæval and modern times. But once started, we find the going good. Chapter I takes us through Industry, industry by industry; Chapter II through Foreign Trade, company by company, in so far as foreign trade was conducted by companies. In effect, we have monographs within monographs. The technique resembles that of Professor W. R. Scott, save that relatively more space is given to the presentation of opinion, as opposed to factual analysis.

The sections are strongest when they are showing the evolution from the central regulation of Tudor and early Stuart times to the looser, freer framework of, say, 1660 onwards. Among companies, the Hudson's Bay Company, which passed with such wonderful significance into the Canadian West of to-day, receives slender treatment. It is not that the author does not take us into the nineteenth century, but rather that he does not make clear what it signified in the eighteenth. Professor Scott's treatment is equally unedifying. The section might be re-written in the light of H. A. Innis' *Fur Trade of Canada*, 1930.

In Chapter III, Agriculture, we enter a maze. We have no map, to take the place of separate industries; and we are asked to accept or reject this or that interpretation of problems and points about which others have written books. But it is almost impossible to find out in what part of England we are, what the author understands by grass land, and so on. The terminus, too, is inconveniently ragged. Tull, Townshend and Bakewell, the early pioneers of agricultural progress, are mentioned in a single solitary sentence, at the conclusion of a paragraph concerned with anticipations of their ideas. But Corn Markets and Corn Laws are analysed to the end of the eighteenth century. Yet Tull, the greatest individual improver in the annals of agriculture, lived and farmed not around 1800, but around 1700.

Chapter IV, The Mercantile System, is the opening chapter of Volume III; followed by Chapter V, The Control of Industry, and Chapter VI, The Relief of the Poor. Chapter IV is in a sense the key chapter of the work; for it is the one which gives its name to the whole. What then is Mercantilism? Mr. Lipson defines it, or rather says that it "denoted the pursuit of economic power in the sense of economic self-sufficiency. Its underlying idea was to establish the power or strength of a State by making it independent of other States in the economic sphere." It certainly did not denote this to Adam Smith, who made current the phrase, mercantile system. By this Adam Smith meant the commercial system, as opposed to the agricultural system of French physiocracy. Its central feature, as a policy, was the pursuit of a favourable balance of trade through control of the course of particular trades. This was its monetary core: and as applied by England it did not stand for insular self-sufficiency, but for an aggressive policy of forcing the export trade and staking out claims to new and distant markets. Schmoller in Germany took the phrase and gave it its -ism. With him, it has no special reference to a merchant's policy. It denotes the emergence

of nationality in economic life: it is the stage which follows parochial or municipal policy; and of course there are abundant traces of this evolution in England, in its corn laws, poor laws and so on. But in this broad sense mercantilism gives us no clue to the distinctive evolution of England. And this, I suggest, is where Cunningham's lead is better than that either of Schmoller or Mr. Lipson. For he opens his Vol. II with a resounding emphasis on the national ambition for Maritime Power, the distinctive policy of an island of merchant traders determined to expand into a commercial empire. To such a policy the Navigation Laws and Old Colonial System of Mercantile England were fundamental. Mr. Lipson seeks to combine the universatility of Schmoller's view with a distinctive interpretation of England; and I think the result is confusion. Mr. Lipson disapproves of the Navigation Laws. He points to the capacity of the Dutch to survive them, and even to profit by them owing, *inter alia*, to the disabilities they imposed on English shipbuilding costs. But does he not commit here the very error against which he warns us when he says of Colonial policy itself, "Colonial legislation must be treated not as a mosaic of disjointed fragments, but as the expression of co-ordinated lines of policy" (III. 154)? Bounties, drawbacks, colonial restrictions *and* Navigation Laws stood or fell together. The last were the arrow-head of the policy; and even though they outlived their day, as Adam Smith believed in 1776, they got there in their day. They did not give us the Dutchman's profitable entrepôt trade between the Baltic and the Mediterranean, but they helped us to the much greater result of making London the entrepôt between the Old World and the New. Mr. Lipson, in the mood of Unwin and Professor Scott, finds that the laws and wars of Cromwellian times were pernicious. But are we to believe that the authors of the massacre of Amboyna were prepared to deal with England with Cobdenite peacefulness in the North Sea of the seventeenth century? I for one cannot. If Mr. Lipson condemns the Navigation Laws, I believe he must condemn the whole of Mercantilism; but this he clearly does not. In fact, he seems here the embarrassingly loyal disciple of that otherwise generally anticipated and much-overrated fellow Adam Smith—an economic convert without the master's saving political sense.

Mr. Lipson's animus against Adam Smith leads to strange things. At III. 50, in a study of Protection, we are switched suddenly to Inventions. Why? Because they were more potent

in advancing free trade than the theoretical arguments of Adam Smith! Mr. Lipson keeps by him a rubbish heap of "commonly supposed," "usually believed," "sometimes asserted" things, which he discards for his own interpretations. One of these is an Adam Smith who suddenly by a book reversed the trend not only of policy, but of events. It is, however, the very essence of Adam Smith that he went along with events and recommended in economic policy the fast-spreading liberalism of his age. Another is an Industrial Revolution which crashed over England out of nowhere. But who ever did or does suppose or believe or assert this? Those who follow Marx and Toynbee in using the phrase insist thereby that the pace of change quickened tremendously around 1760 and produced epoch-making changes in the structure of industry and the manner of life, which were incomparably more profound than any changes around 1660 or 1560 or any other previous time. Certainly Mr. Lipson does not disprove the Revolution by showing how well the stage was set for this profound phenomenon. For him, however, there are no Rockies, because the Rockies have foot-hills.

At III. 114 a paragraph on the Treaty of 1786 opens ominously with, "In concluding a treaty of commerce with France the younger Pitt may have been fortified in his opinions by *The Wealth of Nations*; but there appear to be no valid grounds for the common assumption that the beginnings of free trade were due to the influence of Adam Smith," and it concludes thus: "In short, the beginnings of the free trade movement in England were dictated by practical considerations, in which abstract doctrines of economic freedom did not have the influence commonly assigned to them." Assigned by whom? Since Schelle's *Dupont de Nemours*, 1888, it has been clear that the author of the Treaty was de Nemours. In France the doctrinaires carried the day against industrial opinion, as they did again in 1860. But who has ever supposed that this was so in England? In 1786 in England the new industrialists triumphed: cotton, iron and pottery, the banner-bearers of the Industrial Revolution. Mr. Lipson says that the passage of the Treaty did not produce a single hostile petition. But Mr. Witt Bowden (*Industrial Society in England*, pp. 183–5) gives detailed evidence of the organised opposition and protest of the older trades, as recorded in official documents. Mr. Lipson says, "The real cause of the change was not any theoretical demonstration of the benefits of free trade, but the confidence which English industrial interests now felt in their ability to meet foreign competition." But

Mr. Bladen in *Economic History*, No. 3, p. 366, concludes his analysis of the Wedgwood documents with the cautious opinion, " Perhaps it was less their confidence in their unmatched superiority, and more the pressure of increasing production in a restricted market, that explains the liberalism of the new manufacturers." One cannot help feeling that if only Adam Smith had not in his edition of 1784 added a strengthening clause in favour of such a treaty, Mr. Lipson would have written otherwise.

In his last two chapters Mr. Lipson leaves opinion, where he is weak, for structure, where he is strong. Valuable sections on Capital and Finance, Wages, Unemployment, Gilds, Patents of Monopoly, Trade Unionism bring together a mass of first-hand knowledge, subject by subject, until we arrive finally at Relief of the Poor. In this last there is abundant information about everything except the leading clauses and cardinal principles of the 43rd of Elizabeth, C. 2. (1601). If this, the fundamental act, were printed *in extenso* in an appendix, then the various anticipations and amendments with which the author is concerned would be more easy to comprehend. We should have then both the wood and the trees.

In conclusion, this is a work of notable scholarship. The general ideas by which the facts are joined together are less valuable. Where they touch on price or money they are not those of a writer familiar with economic theory. Mr. Lipson concludes Vol. II by saying of the Corn Laws to 1815, " It appears evident from the range of prices that they did not make bread dearer." But to an economist it would not appear thus evident. The whole point is whether the price, but for the Corn Laws, would not have been lower still. But even though this and similar criticisms could be made on Mr. Lipson's theory, the theory after all is not the main part. The main part is a rich storehouse of facts, and Mr. Lipson gives freely of his treasure.

C. R. FAY

The Cotton Trade and Industrial Lancashire, 1600–1780. By ALFRED P. WADSWORTH and JULIA DE LACY MANN. (Manchester University Press. 1931. Pp. xii + 539. 25s. net.)

THE Lancashire cotton manufacture has occupied a prominent place in all accounts of the English " Industrial Revolution "; yet the earlier history of the industry remained strangely neglected until quite recently. Baines, in his classical *History of the Cotton Manufacture*, devoted only two short chapters to the development of the British industry before 1760. The real

significance of the earlier period was hinted at, almost for the first time, in the first two chapters of Professor Daniels's *Early English Cotton Industry* (1920); but even Professor Daniels's account is reduced to the dimensions of a brilliant essay by the detailed and scholarly work which has now been produced by Mr. Wadsworth and Miss Mann, as the result of a decade's patient research.

Mr. Wadsworth and Miss Mann have not been content to study merely the documentary material which could reasonably be expected to yield information about the cotton industry; they have delved in some of the most unlikely places, and have found hidden treasure in unexpected profusion. In the records of the Palatinate and Duchy of Lancaster they have discovered great masses of unused material illustrating the industrial, commercial and financial organisation of Lancashire during the seventeenth and eighteenth centuries. From the *Archives Nationales* and other French sources they have solved the mystery of John Kay's later life, and have brought to light the remarkable career of John Holker, the Stretford calenderer who served with the Young Pretender's army in 1745, escaped from Newgate, fought with the French army in Flanders, became Inspector-General of Foreign Manufactures under the French Government and played an important part in the development of the French cotton industry. From the Exchequer records they have extracted the industrial autobiographies of more than a hundred Manchester weavers of the earlier eighteenth century. In the Wigan Library they have discovered the *Linen and Cotton Broad-Ware Weavers' Apology* of 1758, which was necessary to supplement the *Worsted Small-Ware Weavers' Apology* of 1756, found by Professor Daniels in the Manchester Reference Library. Behind the seventeenth-century panelling of Hacking Hall (near Bolton) were discovered fragments of cotton cloth and cotton yarn, rammed in together with letters and business memoranda of the years 1607–10, which contain some of the earliest known references to the Lancashire cotton industry. Other new evidence analysed by Mr. Wadsworth and Miss Mann came from such varied sources as the India Office, the House of Lords, the *Staats-Archiv* of Vienna, the Lancashire County Records, manuscripts in the Birmingham Reference Library as well as in six Lancashire reference libraries, and the private records of several business firms of the seventeenth and eighteenth centuries.

There is, indeed, more new and important material embodied in the book than can be appreciated at a first (or even a second)

reading; the dazzled reviewer can merely indicate some of the special features which contribute to the book's pre-eminence over earlier histories of the cotton industry. Perhaps the most fruitful part of Mr. Wadsworth's work has been his investigation of the commercial and financial organisation underlying the Lancashire textile industries during the pre-factory age. His detailed account of the London and Manchester business of the Chethams during the earlier seventeenth century has led him to analyse a bewildering variety of types of industrial production, dependent on the activities of an extensive network of middlemen, and involving very intricate credit relations. To the industrial organisation of this early modern period economic historians have given various names, such as the domestic system, the merchant employer system, the putting-out system, the commission or factor system; Mr. Wadsworth's work seems to make it clear that none of these names is adequate to cover all the cases. Indeed, the reader is tempted to conclude that there were almost as many "systems" as there were middlemen.

The complexity of Lancashire economic organisation during this period may be realised from Mr. Wadsworth's analysis of the Manchester linen draper's functions as a controller of industrial production. Apart from the more obvious commercial side of his business, the Manchester linen draper of the later seventeenth century engaged in "buying and selling, putting out linen yarn [and] cotton wool to the spinning, winding, warping, weaving"; he also controlled the finishing processes, "the calendering of linen goods, the perching, dyeing and cutting of fustians." Sometimes he advanced cotton and yarn to middlemen manufacturers known as fustian makers; sometimes he put out the work directly from his own warehouse to domestic spinners and weavers, sometimes he employed a country putting-out agent. The country agent, in his turn, is found on closer inspection to have performed a great variety of functions, "as putter-out on commission of cotton to be spun into weft, and of cotton weft and linen warp to be woven into fustians; as buyer on commission of the linen yarn for warps; as collector on commission of cotton weft spun in the country." Often he acted also as a maker of fustians on his own account, obtaining the materials on credit from the draper and bartering the fustians with him for a cash balance and a further supply of materials. Such a complicated organisation of domestic industry necessitated a very elaborate credit mechanism, and it will be evident that by the later seventeenth century "the functions which were

later to be those of the banker were performed by the trader as a normal part of his business. . . . Country banking grew up as a by-product or offshoot of commercial capitalism." Mr. Wadsworth explains the credit mechanism of the period in detail, with specific instances drawn from the Palatinate and Duchy records.

In the later seventeenth and earlier eighteenth centuries some of the mercantile and manufacturing houses of Manchester became of national or even international importance. In particular, the hectic career of Samuel Touchet suggests that he would have been as much at home among the monopolistic mergers and financial manipulation of the earlier twentieth century as in those of the earlier eighteenth. Touchet inherited a share in the family business of manufacturing and dealing in linen and cotton goods at Manchester. He went to London as a young man, probably as the firm's City representative. Very quickly he developed extensive commercial interests in the import of raw cotton from the Levant and the West Indies, of linen yarn from the Continent, and in the slave trade. By the 1750's he had become one of the most prominent financiers in London, and it was as a financial expert that he was returned to Parliament in 1761, in the Government interest. He had developed a considerable money-lending practice among the younger members of the nobility; his shipping interests included insurance-broking, speculation in naval prizes, and bill dealings with the West Indies. Yet he still retained his original interest in the cotton industry. His purchases of raw cotton were so extensive that he was accused (perhaps justly) of attempting to organise a "corner"; while at the same time he was negotiating with Lewis Paul, the inventor of the first roller-spinning machinery, in what may have been an attempt to secure a monopoly of the new cotton-spinning factories. Touchet had too many-sided and meteoric a career to be regarded as a typical Lancashire business man of the eighteenth century; but the biographies of many of his Manchester contemporaries, scattered (as it were casually) throughout Mr. Wadsworth's pages, reveal a widespread spirit of enterprise and a capacity for large-scale operations which were not so common among their continental rivals.

The "high degree of practical individualism" which distinguished the merchants and manufacturers of Lancashire may have been one reason why the English cotton industry forged ahead of the French during the later eighteenth century. A particularly interesting feature of Miss Mann's work is her frequent

reference to the progress of French industry, for the purpose of keeping English industrial development in its true perspective. The industrial relationship between England and France was evidently not so one-sided as many writers have supposed. It is true that English malcontent industrialists like John Kay, John Holker, and Elias Barnes helped to spread the use of English machines throughout France; but French inventors were almost as active as the English, though they were certainly less successful. If Englishmen were supreme in mechanical invention, Frenchmen seem to have been superior in some branches of industrial chemistry. The long struggle of the English manufacturers to discover a satisfactory "Turkey red" dyeing process was futile until Louis Borelle in 1784 disclosed the secret of the French dyers to the Manchester Committee of Trade; and it was the chlorine process of the French chemist, Berthollet, which transformed the English and Scottish bleaching industries. In the eighteenth century the English were not regarded as an inventive race; there was a proverb that "for a thing to be perfect it must be invented in France and worked out in England." Even in experiments with spinning machinery the French were not much behindhand. The only really original idea in the evolution of the water frame was Lewis Paul's conception of spinning by rollers; and Paul (known to some of his English acquaintances as "Mounsieur" Pau, or Po) was almost certainly of French extraction.

All through the eighteenth century the French Government was far more solicitous in its protection and encouragement of technical progress than was the English Government. English inventors, organisers and artisans could be reasonably sure of financial backing and a government pension if they settled in France. By 1760 France had the beginnings of a far more complete factory system than anything which had yet appeared in the English cotton industry. French manufacturers had access to rather cheaper raw materials, a wider home market, and almost equally good access to overseas markets. Yet the English cotton industry drew steadily ahead of the French during the later decades of the century. Miss Mann states the problem in a nutshell in her account of Kay's fly shuttle. "In England Kay met with jealousy and dislike, but the weavers, after a good deal of preliminary grumbling, pirated his invention. In France he was patronised by the Government and given every facility for popularising the fly shuttle, but its use died out within a generation." Roland de la Plâtière accounted for the failure

of the fly shuttle in France by enumerating its technical defects; but these technical defects hindered the adoption of the fly shuttle in England also—until the English weavers and manufacturers removed them.

If it was the greater adaptability and perseverance of the English weavers which made the history of the fly shuttle different in the two countries, perhaps the greater independence and initiative of the English manufacturers was one reason why the English cotton industry as a whole drew ahead of the French, and why Lancashire drew ahead of the other cotton manufacturing districts of England. No doubt the dampness of the air and also the abundant supply of soft water in East Lancashire were factors favourable to the growth of the cotton industry there; but an equally important circumstance was the fact that Lancashire was already (before cotton was used in the English textile industries) a considerable manufacturing district with a plentiful supply of cheap labour, which was comparatively free from corporate and statutory restrictions. Trade corporations and municipal restrictions remained a normal feature of French industrial organisation until the Revolution; whereas in England such corporate restrictions were almost obsolete by the eighteenth century, and had never existed at all in the cotton manufacture. Miss Mann emphasises the fact that priority in technical invention was comparatively unimportant as a cause of England's industrial supremacy in the later eighteenth century. She concludes that "the new machinery spread quickly in England because the whole community was interested in it. The freer organisation of industry and the higher standard of life among working men facilitated experiment. . . . A consideration of the greater political security, the larger capitals, the freedom from even the shadow of restriction . . . may go some way to answer the question why in the cotton industry as in others England preceded France."

Mr. Wadsworth and Miss Mann have forestalled criticism by apologising for a certain lack of unity and a looseness of framework which are almost the only considerable defects in their book. It is, certainly, a little disconcerting to find that industrial Lancashire may extend, for the purposes of the economic historian, not only into Cheshire and Yorkshire but also into Derbyshire and Staffordshire. It is also rather confusing, at a first reading, to find that a chapter which begins with an account of the Manchester small-wares manufacture goes on to describe the manufacture and bleaching of linen tapes near Leek, the growth of a

factory system in the silk industry, and the beginnings of British calico-printing. Nevertheless, the authors are fully justified in their plea that "the economic history of the seventeenth and eighteenth centuries is still largely a trackless territory, across which each must drive his own paths . . . tentative and exploratory, and sometimes digressive." Another possible criticism of the book concerns the fact that it ends somewhat abruptly at 1780, a date which the authors have chosen as marking the end of the first experimental period in the growth of the factory system. This has caused several of the chapters (notably Chapters VII and XV) to stop short at a most exciting point, almost as if they were "to be continued in our next instalment." But apparently the authors do not intend to publish any further instalment; they modestly suggest that the task must be left to "abler hands." All students of economic history will hope that this pernicious modesty may be broken down, and that Mr. Wadsworth or Miss Mann (or both of them) may be persuaded to write two further volumes on the same scale, bringing the history of the Lancashire cotton trade down to 1914.

ARTHUR REDFORD

The Old Trade Unions. By WILLIAM KIDDIER. (Allen and Unwin. 1930. 7*s.* 6*d.*)

MR. KIDDIER has collected in this book a number of picturesque details from the records of the Brushmakers' Trade Union in the nineteenth century. His book will be appreciated alike for its human and for its historical interest. Accounts of the system of tramping, by which unemployed members followed a recognised course of 1,210 miles in search of work, the Society providing them with beer and bed at appropriate intervals; of the shop custom of noisy demonstration on the first stroke of twelve on the day when an apprentice completed his seven years' indentures; of the constant financial difficulties of the Society, of the loans from one Union to another, and, above all, of the recurrent rescues from bankruptcy effected by timely advances from the landlord of the public-house where the Society's meetings were held; of the custom of collecting opinions or votes on matters submitted to the members by means of a tin box carried from shop to shop by unemployed members detailed for that duty; of the account book which still shows the damage that it inadvertently suffered at the hands of the Secretary's children in the eighteen-twenties—all these and similar incidents cover

Mr. Kiddier's pages and will entertain as well as inform his readers. The author has, wisely, quoted freely from his sources (chiefly the minute and account books of the Union), and included also photographic reproductions of many of the original documents. His own contributions reveal chiefly his intense love of the brushmaker's craft (he is himself a craftsman) and the social atmosphere in which it is conducted; his sympathy with the small master and hatred of the big firm; and his unshakable confidence in the sense, the courage and the generosity of the working man.

BARBARA WOOTTON

Property in the Eighteenth Century. By PASCHAL LARKIN. (Cork University Press. Pp. xiv + 252.)

THIS book was originally presented as a thesis for a Doctorate in the University of London. As might be expected in a work of its kind, it is a scholarly and competent piece of research. Dr. Larkin has set himself the task of examining the influence of Locke's theory of property upon the political thought and practice of the hundred years following upon the publication of the *Treatise on Civil Government*. The subject is an important one for economists no less than for political scientists; for the orthodox eighteenth-century version of Locke's views formed one of the main premisses of classical economic theory. Locke himself had laid down two distinct theses: that men were entitled to property rights over those gifts of nature with which they had mingled their own labour (and those only); and secondly, that property rights thus acquired were sacred and inviolable. His eighteenth-century successors, for reasons which Dr. Larkin explains, laid stress upon the second of these propositions at the expense of the first. And so the science of economics was born in an atmosphere in which it was easy to assume that men have a right to do what they will with their own, and to neglect the significance of private property as a changing economic institution.

It is unfortunate that the limits of his project should have compelled Dr. Larkin to stop at the very time at which from many points of view the chief interest of his subject begins. The nineteenth century is after all the crucial one in the development of both the theory and the institution of property. It saw not merely the rise of socialism, but also the maturing of the new forms of industrial property—joint stock companies, intangible and incorporeal assets, patent and good-will rights, absentee ownership, and so on. We may hope that in a future study Dr.

Larkin will take up the history of these developments and show their far-reaching significance for social theory.

The Queen's College, L. M. FRASER
Oxford.

The Development of Economic Doctrine. By ALEXANDER GRAY. (London: Longmans, Green & Co. 1931. Pp. 384. 5*s.*)

THIS is a book for which we have waited a long time, and teachers and students alike owe a debt of gratitude to Professor Gray. One of the difficulties of the historian of economic doctrine is to decide what to leave out; obviously it will always be easy for a critic to quarrel with a particular omission, or to suggest that greater emphasis should have been laid on this writer or that doctrine. The first of these criticisms Professor Gray meets in advance. "I have endeavoured," he tells us in the Preface, "so far as practicable to mention no writer unless I could find space for something like an intelligible account of what he stood for." And his choice has been the happiest: the result a coherent and well-balanced account of the main schools of economic thought. In his survey of the landscape he has so wisely selected and so ably described the peaks and plateaux that the valleys have fallen into their due perspective, and the traveller can feel that, aided by his guide, he has not only covered the ground but understood the route.

The first chapter deals with Greece and Rome, the second with the Middle Ages, and we then proceed by way of the Mercantilists and the Physiocrats to Adam Smith, Malthus and Ricardo. The argument passes logically to the earliest critics of the classical school, to Lauderdale, Rae and Sismondi, thence to Müller, List and von Thünen. A chapter is devoted to the optimists, Carey and Bastiat, and the story then returns to the later exponents of the classical tradition, to Say, Senior and J. S. Mill, with an explanatory apology for bundling Mill so unceremoniously into a second-class compartment and with so mixed a company. A chapter of considerable length devoted to Karl Marx is perhaps the best thing in the book: "the miracle of confusion" and "supreme example of how not to reason" of Marx's masterpiece having stimulated to their utmost capacity his critic's powers of lucid exposition. The concluding chapter deals with the Austrian School: further than this the author does not go, since more recent economics "have not yet become a matter of history," and we are "still too near their development to be able properly to assess their value."

Professor Gray claims no more for his book than that it may be found useful as a stepping-stone to the more comprehensive works of Haney and Gide and Rist. But actually he has packed within the compass of twelve not very long chapters a narrative at once comprehensive and concise, illuminated by a just, temperate and sympathetic judgment. He has given us not only good history but good reading. A caustic phrase, a philosophic reflection, a well-chosen metaphor, an occasional colloquialism connecting straight into the rough and tumble of the daily round, enliven these pages without detracting in the least degree from the restraint of the style or the scholarliness of the exposition.

H. REYNARD

The Tables Turned. By JAMES BONAR. (London: Macmillan & Co. 1931. Pp. viii + 136. 7*s.* 6*d.* net.)

WHEN digestion or fatigue suggest an hour's quiet reading less strenuous than the latest explanation of unemployment or the "world-crisis" and less tiresome than the modern novel, economists will do well to take up this charming book, in which Dr. Bonar has imagined the great British economists of the century 1750 to 1850 in Elysium conversing among themselves and with later arrivals. Adam Smith, Malthus, Ricardo and John Stuart Mill are interviewed in the pieces numbered II to V, while the first piece, the title of which is borrowed for the whole book, consists of a more general conversation between the fathers and their disciples. Here I confess to some difficulty in discovering what tables were turned and who turned them.

Of the many good things in the book I will content myself with quoting only the remark attributed to Mill on p. 87, "Few things annoy me more than the careless ease with which men dismiss the old political economy and appeal to 'practical experience,' by which they mean what they have seen, heard, and misunderstood."

EDWIN CANNAN

Les Physiocrates. Par G. WEULERSSE. (Paris: Gaston Doin et C^ie^. 1931. Pp. 332, sm. 8vo. 30 *frs.*)

IN 1910 Dr. Weulersse gave us two important volumes on *Le Mouvement Physiocratique en France* (*de* 1756 *à* 1770). This was described as the first portion of a study which he hoped to complete from material already collected. The announcement of a new work with the comprehensive title *Les Physiocrates* aroused the hope that we were now to see the history carried over a longer period and touching upon the influence of the Physiocrats

in other countries. But these hopes are disappointed. The present volume is merely an abridgment of the earlier work. It provides a useful compendium of the doctrine of this first school of economists but is incomplete as a record of their activities and their far-reaching influence.

The author considers that after the fall of the Choiseul ministry at the end of 1770 the *Economistes* as an organised party had no continuous or direct effect upon public opinion and the policy of government; the school was broken up; there were still Physiocrats, but they were isolated, and there was no longer a Physiocratic Movement. It is permissible to doubt whether these opinions can be maintained. The fall of Turgot in 1776, rather than the fall of Choiseul in 1770, seems to mark the arrest of their influence upon government. The indefatigable Mirabeau survived till 1789. The industrious Dupont de Nemours, a member of the Constituent Assembly, played an active part in speech and in writing, in forming the economic programme of the French Revolution in its early stages. When Dr. Weulersse completes his history it seems safe to predict that he will convince his readers that the Physiocrats were by no means a spent force after 1770.

Ideas have no political frontiers. There were disciples and opponents of the French school in England and Germany, Spain, Scandinavia and Italy, and even in North America. To appraise aright the influence of the Physiocrats on economic thought and action it is important to look beyond France. The original volumes were, by their title, narrowly circumscribed in time and space, but a handbook entitled *Les Physiocrates* might fairly be expected to cover the subject more widely.

It is more than a little surprising that Dr. Weulersse makes no mention of the literature of his subject during the last twenty-one years. There is no reference to Oncken's *Geschichte* or even to Schelle's monumental edition of Turgot. The elaborate account of the "system" abounds with quotation marks to show that the *ipsissima verba* of its various exponents are reproduced, but there is no indication of the source of the quotations. Saint-Lambert is described as *le poète ami de l'Ecole*, and several lines are given from his poem *Les Saisons*, but the reader is not informed that the work is translated from the well-known English work, Thomson's *Seasons*.

To the increasing number of students of the history of economic thought this book may be recommended as a handy epitome of part of an important chapter of the subject, but it needs to be supplemented by a continuation. HENRY HIGGS

NOTES AND MEMORANDA

Unrecorded Unemployment in the Cotton Industry

It has long been recognised that some unemployment in the cotton industry is not revealed by the monthly unemployment statistics compiled by the Ministry of Labour and that the defects in the measuring rod are due to the prevalence of short-time working. The following note embodies the result of an inquiry into the importance of this unrecorded unemployment.

I

Short time in the cotton industry takes different forms in the different sections, and although custom varies a great deal from one part of the county to another, certain generalisations can safely be made. In spinning, the normal procedure is that a firm which cannot keep the whole of its machinery running full time will close down completely for several days in the week. Whilst the mill is open the whole of the machinery may be running but, in any case, all the operatives will be at work with their normal complement of machinery. Short time in spinning, therefore, usually means full days of unemployment succeeded by full days of employment. In this case the Ministry of Labour's unemployment statistics, based on the figures of " books lodged " on a Monday in each month, may be expected to record real unemployment fairly accurately. The only doubt is whether the figures for Monday will be typical of the other days of the week. If Monday were a favourite day for mill stoppages, then the recorded level would be higher than the real level, or if, from time to time, there was a change in the manner in which the days of stoppage were spread over the different days of the week, then the course of recorded unemployment might give a false guide to the real course. But from inquiries which have been made of Employment Exchanges in the cotton area, it appears that the discrepancies introduced in this way are not serious statistically. Moreover, since employers seem in most cases to have organised their short time in order to fit the " continuity rule," the workers have usually been able to draw benefit for the days on which they were unemployed.

In the preparatory processes between spinning and weaving, such as beaming, warping and winding, whilst a good deal of short time may be worked in the form adopted in spinning, there is, in addition, a great deal of intermittent and spasmodic unemployment. A worker will often be employed for half a day and then sent home, or work a short day. This type of unemployment is not included in the existing statistics, since the Unemployment Insurance Scheme does not recognise anything less than a full day's unemployment, and persons not at work through short stoppages of this kind do not register at the Employment Exchange. In so far as this intermittent unemployment changes in relative importance to other and recorded forms, then not only the real level but the course of unemployment may be inaccurately pictured. It seems impossible, however, to determine how important this type of unemployment has been.

II

In weaving, under-employment which does not fall within the official statistics is more widespread, and in this case it is possible to make some assessment of its importance at various dates for limited samples. In weaving it is uncommon, though not unknown, for a mill to be working part of a week. If the mill is running at all, it will usually run forty-eight hours in the week. Reduction in output takes the form, in the majority of cases, of stopping a certain proportion of the looms in the mill, and usually this closing down is not done by dismissing a number of workers and throwing their looms out of production, but by lessening the number of looms which each worker is operating.[1] In some cases the adoption of the latter method is a matter of choice, in others of necessity. In particular, it is a customary practice in weaving mills which are working at less than full capacity for the weavers who are actually retained to be given warps by a system of rotation, assuming their empty looms are suited to the type of warps available. Observance of this custom by the employer and the intermittent flow and the variety of orders have the effect of periodically reducing the number of looms which each weaver at work is tending. It follows as a broad rule from the above that the weaver may suffer from unemployment in either one of two

[1] In March 1930 a special inquiry was carried through by Employment Exchange managers in the cotton area which showed that it was unusual for weaving mills to work part of the week, although in some cases an individual weaver may be unemployed during part of the week because he is "playing for warps" in respect of two or more of his looms.

ways: he may be out of work for the whole week or he may be working the whole week but on less than his normal number of looms. In the latter case he would not be recorded as unemployed in the official unemployment statistics.

One indication of the relative importance of this type of unrecorded unemployment is provided by the statistics of employment and weekly wages paid in the weaving section of the cotton industry which are published monthly in the Ministry of Labour *Gazette*. The sample of firms covered by this monthly inquiry is rather low, and in other ways the material is open to criticism, but when chain indices of employment and wages paid are calculated and from these an index of weekly earnings per head is constructed, a very marked fluctuation in weekly earnings is to be noticed when comparing relatively good with relatively bad trading years.

TABLE I.

Index of the Movement of Weekly Earnings in the Weaving Section of the Cotton Industry.[1]

(1925 = 100.)

1924	96·4
1925	100·0
1926	92·8
1927	95·7
1928	97·0
1929	98·5
1930	88·8

If, to take the extreme cases, 1925 be compared with 1926, when the coal strike led to a reduction of output, or with 1930, when the world depression hit the cotton industry very badly, average weekly earnings fell by 7 per cent. and 11 per cent. respectively. A part of this decline may be due to *some* unemployment consisting of full-day stoppages within a week when work was in progress on other days. But if the contention above as to the importance of under-employment in weaving is sound, then the greater part of this drop was the outcome of an increase in 1926 and 1930 of this type of unrecorded unemployment over the amount which existed in 1925.

Fortunately it has become possible to support this presumption

[1] The chain index was, of course, constructed from month to month, but for convenience in presentation here a simple average of the months for each year was made. Further, there have been changes in piece rates, and these have been allowed for. It is impossible to make allowance for changes in weekly earnings which might well have come about, on the existing price lists, through improvements in the quality of the cotton goods being woven.

by access to the actual records of weaving mills. Through the kindness of a manufacturer we have records going back to 1927 for two mills, both producing fancy goods and both doing rather better than the average up to 1929, which enable us to indicate broadly the difference between the recorded and the total unemployment. In Table II three columns are shown for each mill. The first shows the average number of looms being operated by each weaver for comparison with the number of looms operated normally on full capacity working. The second shows what would have been the percentage unemployment among weavers normally attached to these mills if, with the looms actually running, weavers had been working their full average complement of looms. This represents the true rate of unemployment among the workers. The third column shows the percentage of the total weavers who actually were not working at all, *i.e.* were not in the mill.[1] This represents the unemployment which would result in a person registering at the Employment Exchange and coming within the purview of the unemployment statistics.

Two conclusions are apparent from this sample. Firstly, real unemployment, measured by the extent to which the workers' capacity for effort is left untouched or in relation to the wages which he can earn on piece-work, can rise greatly without this necessarily reacting upon those registering at the Exchanges. And, secondly, the relation between recorded and unrecorded unemployment fluctuates widely from time to time, depending upon such factors, in the individual mill, as the sorts of cloth being produced, the size and frequency of orders for particular sorts of cloth, and the extent to which more than one type of loom is run by the same weaver.

A second sample covers a larger number of mills, but only extends over four months[2] in the very abnormal conditions of 1931. This sample covers the mills working in the Blackburn area, and the information obtained from them makes it possible to construct a table similar to that given above. The general results are the same.

[1] One difficulty attaching to this column and the corresponding column in Table III is that it is assumed a certain number of weavers are attached to a mill, and that when they are not working at this mill they will not find work elsewhere. But even if there has been some migration of this sort, it cannot invalidate the comparison which we are making between the second and third columns in each of the Tables II and III, because our failure to allow for migration causes the percentage unemployment in *both* columns to be slightly higher than it would be if migration were taken into account.

[2] The information was obtained for the last Saturday of each month. The number of firms covered comprised about 25,000 looms and 7,000 weavers.

TABLE II.

Under-Employment in Two Weaving Mills.

1.	2.	3.	4.	5.	6.	7.
	Mill A.			Mill B.		
Date.	[1] Average No. of Looms being Operated by each Weaver. Normal = 3·67.	Percentage Unemployment among Weavers if Looms Running had been worked 3·67 Looms to Weaver.	[2] Actual Percentage Unemployment among Weavers.	[1] Average No. of Looms being Operated by each Weaver. Normal = 3·67.	Percentage Unemployment among Weavers if Looms Running had been worked 3·67 Looms to Weaver.	[2] Actual Percentage Unemployment among Weavers.
1928.						
Jan. 28	3·48	11	7	3·76	1	3
March 31	3·65	5	4	3·74	0	2
May 26	3·61	5	3	3·78	0	3
July 28	3·60	8	7	3·22	18	7
Sept. 29	2·84	26	5	3·53	5	1
Nov. 24	3·33	13	4	3·46	8	2
1929.						
Jan. 26	3·55	8	5	3·71	0	1
March 30	3·93	0	7	3·78	0	3
May 25	3·54	9	6	3·47	6	1
July 20	2·86	26	6	2·50	39	11
Sept. 28	2·60	39	13	2·89	24	4
Nov. 30	2·47	45	19	2·77	26	2
1930.						
Jan. 25	2·03	51	12	3·05	21	5
March 29	2·48	43	16	2·31	52	24
May 31	2·19	60	34	2·38	48	20
July 19	2·73	73	63	2·77	38	18
Sept. 27	3·17	55	48	2·79	41	22
Nov. 29	2·33	68	50	3·53	11	8
1931.						
Jan. 17	2·72	40	19	2·43	39	8
March 28	2·88	30	10	3·48	5	0
April 24	3·00	22	4	3·43	7	0
May 29	2·69	43	23	2·89	21	0
June 30	2·98	42	28	3·10	18	0

[1] By using an average figure of looms per weaver some error may be introduced, since there are different kinds of looms, different numbers of these are worked per weaver, and the calculation above is based upon the assumption that all the looms are of the same type and that each worker is attached to an equal number of these.

[2] In determining the number of weavers actually not in the mill at certain dates, use had to be made of the number of National Health Insurance stamps purchased by the employed. The result was to show a larger percentage of unemployment than was actually the case. This, however, merely strengthens the deductions drawn from the table.

TABLE III.

Date.	Normal Average No. of Looms per Weaver on Full Running.[1]	Actual Average No. of Looms Running per Weaver.	Percentage Unemployment among Weavers if Looms Running had all been Operated by Weavers with Full Complement of Looms.	Actual Percentage Unemployment.
1931.				
May 30	3·60	3·30	22·9	15·8
June 27	3·64	3·29	22·3	14·1
Aug. 1	3·56	2·99	32·3	19·3
Aug. 29	3·62	2·96	33·5	18·5
Sept. 26	3·63	3·17	30·1	19·8

[1] It should be noted that there is always a certain number of weavers in a mill (chiefly young weavers) who operate only two or three looms, even when the mill is working at full capacity, and that the proportion which they bear to the total weavers employed may vary from period to period, and from mill to mill in the same period. This accounts mainly for the variation in the first column in the normal average number of looms per weaver recorded at different dates.

III

This statistical evidence is scrappy and in detail perhaps not absolutely accurate. But there can be little doubt that in the broad sense it reveals conditions of which the working population in the great weaving towns of Lancashire is only too keenly aware. Certain practical corollaries seem to follow :

1. A great deal has been made in recent months of the "anomalies" which exist in the working of the Unemployment Insurance Scheme. Here, however, is a case which runs against the usual tide of discussion. A weaver working two or three looms instead of four is fully employed; he pays a full contribution to the Unemployment Insurance Fund. Yet his wage may only be one-half of the *normal earnings for full capacity running*. And in bad times a large proportion of the workers in the weaving industry may be affected in this way. Repercussions upon family income are serious, and there can be little doubt that some married women whose husbands' earnings have been depleted by this form of under-employment have been compelled to re-enter the labour force available for employment in cotton weaving and have consequently registered at the Employment Exchanges.

2. The poll tax upon employment imposed in the form of the employers' contribution to the Unemployment Insurance Fund naturally becomes proportionately heavier when under-employment is common, and, although it is difficult to obtain evidence

on this point, there seems some reason to believe that the employer attempts to lessen the burden by employing young persons, under eighteen years of age, at the expense of those over eighteen years, in respect of whom a higher rate of contribution is payable.

3. The prevalence of this type of unemployment has a direct bearing upon the validity of calculations of output per head in individual industries. Many of these calculations are now made by comparing an index of production with an index of employment obtained by deducting unemployed insured persons from the total insured in the industry. When such calculations are made for textiles or cotton a very remarkable and, in the circumstances, almost incredible, fall in physical output per head is shown. This has been attributed to "the extreme depression in the volume of sales." [1] But the real reasons are probably more numerous and very different from this. There has been, at least in the cotton industry, a profound change in the quality of the goods produced. For our present purpose, however, it is sufficient to notice that this unrecorded form of unemployment in weaving may be sufficient to account for it. A weaver working three instead of four looms naturally shows about a 25 per cent. drop in output per head. In any case, whilst this form of under-employment exists, changing probably from time to time without any particular relation to the recorded unemployment, the index of employment obtained in the manner described above is extremely likely to produce a false index of output per head.

4. There can be little doubt that this has been one of the influences making for the immobility of the labour in the cotton industry. By spreading work over a larger number of employees it has tended to keep a larger volume of labour attached to each mill than could ever be fully employed again. And there may have been reactions upon public policy. The true situation in the labour market has apparently not been fully realised, for under-employment has not been measured. If, indeed, the Ministry of Labour unemployment statistics had been available for cotton spinning and weaving separately the position would have been made clearer, for, if the conclusions of this note are correct, the recorded unemployment would have been higher in spinning than in weaving. Unfortunately, the cotton industry is regarded as one industry in the Ministry of Labour classification and the curtain has not been lifted. Conditions in the cotton industry, of course, had not, up to the middle of 1929, been so serious as those in some areas scheduled as depressed in which schemes for

[1] See Macmillan Committee on Finance and Industry, p. 54.

industrial transference were most actively prosecuted. But undoubtedly they were graver than was generally realised, and, in view of the events of the past twelve months with its terrific increase of unemployment up to a peak of over 40 per cent. in cotton and the poor future prospects, it amounts almost to a national disaster that whilst the "migration" of population 1921–31 was 12 per cent. for the South Wales coal area (Brecknock, Carmarthen, Glamorgan and Monmouth) and 9 per cent. for the north-east heavy metals region (Durham and Northumberland), the figure for Lancashire was only 3 per cent.

In recent years the industry has been very slow to effect the necessary degree of contraction of its productive capacity as markets have dwindled. The leading symptoms of this lingering structural disease are the existence of surplus mechanical equipment on the one hand, and, on the other, the maintenance of an artificially high labour force employed at something less than full capacity by reason of the spasmodic and intermittent running of the looms in commission. There are signs that the industry is beginning to concern itself with the problem of eliminating surplus mechanical equipment because of the influence which the existence of this surplus has upon costs and upon prices. It is doubtful whether the pressure of economic forces will constrain the industry in the near future to pay equal attention to the cognate problem of under-employment of labour. As a general principle, one may say that in the absence of a "fall-back" wage or minimum wage for under-employed weavers to safeguard weekly earnings under the existing piece price list, it makes but little difference to a manufacturer's wages or other costs whether he employs one weaver upon four looms or two weavers each upon two looms. In fact, it may be contended that the maintenance of an artificially large stratum of under-employed weavers strengthens the bargaining power of the manufacturers in the fixation of wage-rates. There is good reason for believing, then, that the alleviation of this serious labour problem, if it comes at all, must come in some way from without the industry.

JOHN JEWKES
University of Manchester. A. WINTERBOTTOM

INTEREST AND USURY IN A NEW LIGHT

As Sir Josiah Stamp has said, Mr. Keynes' *Treatise on Money* provides material for innumerable analyses of particular questions. To one reader at least it exhibits interest upon loans in a new light,

and it seems that one of the unexpected consequences of Mr. Keynes is a vindication of the Canonist attitude to interest and usury!

The cardinal point made by Mr. Keynes is the distinction between Saving and Investment, between the saving of money and its conversion into capital-goods. Saving without investment is not a service to production, and the saving of money does not by itself cause any conservation of products, but their waste, or their disposal at lower prices and the slowing-down of productive activity. The continuity of the economic process requires that purchasing power should be exercised as it is received, otherwise the demand for goods falls below the supply and we find ourselves in the depressing company of unemployment, falling prices and business losses. The increased saving of money which is the usual practice of prudent people in hard times only aggravates the evil. Remedy can only come by spending, not necessarily on consumption goods only but on production. From the point of view of general economy it might be better to spend on production than on consumption, but certainly the worst thing is the sterile saving of money. The saving is sterile from the standpoint of the community, though it may be profitable to the individual who, apart from any interest earnings, may watch his idle money grow in purchasing power through the fall in general prices.

In such conditions it is a matter to be deplored that holders of money are able to get interest by bank deposits. Interest only encourages socially wasteful saving and discourages socially desirable investment. To this extent, therefore, and in such conditions, interest is anti-social. Mr. Keynes urges the lowering of interest, even the abolition of interest on bank deposits, as proper policy to be pursued when trade is below par.

It is an inescapable conclusion from the Keynesian analysis that interest is the villain of the economic piece. Not that Mr. Keynes suggests the possibility of the abolition of interest. According to his theory interest could be too low and might require to be raised in the general interest: this would be in circumstances when prices were advancing too rapidly. Leaving aside for the moment the old question whether interest is necessary to evoke saving, the only use that Mr. Keynes can see for interest is as a depressant in times of over-activity.

The orthodox doctrine has related interest closely to profit as if the two progressed or declined together. Mr. Keynes shows them as antagonists. Interest upon money is simply an added cost upon capital goods and therefore a deduction from profit and a burden

upon enterprise. Socialist theory assails interest even more destructively than does Mr. Keynes, but Socialist theory also assails profit, whereas Mr. Keynes salutes Profit as the engine that drives the car of progress. The maintenance of profit is essential to trade stability, the diminution of profit inevitably spells trade decline, and it is during periods of Profit Inflation that the wealth of nations is enriched.

The fundamental distinction between Saving and Investment which Mr. Keynes makes renders it equally fundamental to distinguish between Interest and Profit and between Money and Capital. It is here that Mr. Keynes is brought into the camp of the Canonists. Professor Cassel in his *Nature and Necessity of Interest* criticised the Canonists and opposed them with the principle that interest is paid for the use of Capital, not for the use of Money. Now the Canonists never quarrelled with payments for the use of capital, they raised no objection to true profit, the reward of risk, ability and enterprise, but they disputed the identification of the lending of money with the investment of capital and denied the justice of interest as a reward for saving without investment.

The most convenient and accessible statement of the Canonist doctrine is still that of Ashley in Book II of his *Economic History*. A man might advance money to a merchant for purposes of trade and contract to receive a share of the profits. He was entitled to this because he became a part-owner of the capital, shared in its risks. He was a partner, even if only a sleeping partner, with the active trader: he was not simply a creditor. There was all the difference that there is between an Ordinary shareholder, who is one of the proprietors of a business, liable for its debts to the extent of his investment, receiving a dividend only when profits are earned, and a Debenture holder, who simply lends money without the risks of owning and operating capital-goods, and claims interest irrespective of whether the enterprise results in profits or losses. The Debenture holder runs a risk, but it is not directly a risk of trade but of the solvency of the borrower.

The Canonist principle was that sharing in trade risks made an investor a partner, a co-owner of capital, not simply a money-lender, and gave a title to profit. There was a recognised difficulty in laying down rules as to how shares should be divided, and Professor Ashley says:

"Accordingly, the Canonists were disposed to acquiesce in a wide freedom of contract. They were not disposed to criticise unfavourably any arrangement which the parties to an agreement

cared to make, so long as the share of each continued to be contingent on uncertain gains. But until the beginning of the sixteenth century it was the constant teaching of the Canonists that *to bargain for a fixed reward, or dividend, upon the capital invested, whatever the fortunes of business might be*, made the contract usurious."

The italics are Ashley's. He proceeds to say that a guarantee by the working partner merely to restore the invested capital intact came under condemnation because it removed the element of risk needed to legitimatise the bargain for possible profit. At the end of the fifteenth century the so-called "triple contract" obtained apologists among the Canonists, though it was a device for securing profit by lending to a trader while being guaranteed against risk. By the seventeenth century the Canonists had practically given up their battle against interest on loans of money as distinguished from profit on investment of capital. There may be reasons for thinking that the world will go back to the early Canonist doctrine. The classical argument that interest is necessary to evoke saving wears a different aspect when we appreciate that saving does not necessarily mean investment. The saving of money may actually diminish investment, and interest is deterrent to investment. If we could ensure, as the Canonists tried to do, that saving should be rewarded only when it was also investment in capital-goods, we should have gone far to stop the master-evil that Mr. Keynes has revealed to us, of saving exceeding investment.

H. SOMERVILLE

OFFICIAL PAPERS

Dominion of Canada, 1931. Report of the Commission to inquire into Trading in Grain Futures. Chairman, Sir Josiah Stamp, C.B.E. Appointed April 10, 1931: reported April 29, 1931. (Pp. 90, including Appendices and diagrams.)

THE terms of reference to the Commission were,

"to inquire into and report upon what effect, if any, the dealing in grain futures has upon the price received by the producer."

Their finding is—

"in addition to the benefits reflected to the producer in furnishing a system of insurance for the handling of his grain, and in providing an ever-ready and convenient means

for marketing the same, futures trading, even with its disadvantage of numerous price fluctuations, is of distinct benefit to the producer in the price which he receives."

The Commission took evidence from April 13 to April 25 and produced its long report four days later: a notable achievement, seeing that for the most part it is not a recitation of fact, but an ingenious application of theory to highly controversial practice. It is an admirable brief for the Grain Trade, but no more than a brief; for it takes no account of the forces which have moulded the corporate life of Canadian farmers ever since 1918. The question which has agitated and still agitates them is: Can we, the producers of wheat, replace the old system of capitalistic competitive grain marketing, which of its very essence excludes the farmer from conscious control over the marketing of his product, by a new system, based on integration of functions, by a system which involves organisation of marketing on the selling as well as on the handling side? Can we follow the rest of industry into what industry calls rationalisation? Can we rationalise *our* industry and thereby stabilise rural life? Such a programme must indeed take account of what the old system did by its machinery of the futures market, with its speculation and hedging. And the Commission explains with great skill what that system set out to do. But it is haunted by ethics. It tries to show that the speculator "is as much a 'producer' in a moral and ethical sense as the farmer" (p. 19). But to show how Tsarism worked is not to prove that it is better than the Five-Year Plan. To call on ethics is in vain, when in fact a practice violates the social sense of the producing community.

I cannot imagine any serious student of the grain trade arguing that, if you are to have a system of competitive capitalism, you can dispense with the futures market. For that is perhaps its best side. Under such a system everybody, including the farmer, benefits by the devices which provide a continuous, sensitive market, the spreading of the crop in time and place, and the speedy conversion of produce into values against which banks can freely lend. These services are as valuable as the railways which take the produce to market. But the issue is, cannot the system of merchandising, which rules in dairying and fruit, in minerals and manufactures, be made to fit the staple of wheat; and if not, why not? The Commission would say, no doubt, "This large question was beyond our reference." Well and good. In that case a very few pages should have sufficed them. But by suggestion, on nearly every page of a long

Report which combines clear description with advanced economic analysis, runs the idea that the old system is for the producer the best system and indeed the only system that is efficient and in accord with economic teaching. An economic blizzard is on us, but when this has passed away we shall go back to the good old way.

The Commission finished its labours in Minneapolis and Chicago. It would have been irresistibly impressive if it could have shown how well these cities, the fountain and origin of the system, were standing the strain; or if not this, how well the system had worked in normal times. But it could not, because America's prosperity policy for agriculture, instituted in 1929 and canvassed for at least five years before that, involved operations by a Federal Farm Board which were incompatible with the free action of the futures market. And since the blizzard the Chicago wheat pit has ceased to function, so that there has floated before the vision of Winnipeg the chance of capturing the futures business of North America. Did the Commission discuss this in its Minneapolis class-room? The Commission did not visit Australia. It would have found there an even more subversive attitude to the old way. The Commission did not visit the Argentine. It would have found there a system under which most of the export trade is in the hands of two firms, who buy from weak unorganised growers and ship the wheat unsold to fetch what it can in Liverpool. Is it not clear that the question which should have exercised the Commission was, "Is there any reason to believe that the new abnormal conditions will ever give way to the old normal conditions?" Is it not probable that a new normalcy will be reached which involves concerted action by the exporting nations—action for which the Pool has done something to prepare the way and the Grain Exchange nothing?

There is a section in the Report on "The Economists' View." They are represented to be in agreement that speculation is good for the farmer. (If they are thus agreed, it is worth emphasis, because it would be one thing on which they are agreed to-day in the wide realm of economics.) Alfred Marshall is freely quoted, and his disciples also. If we turn to the section in Marshall's *Industry and Trade* from which the extracts are derived we find that its heading is, "The services rendered by constructive speculation on a Wheat Exchange, illustrated by its efficacy in lightening the burden of risks borne by grain merchants and millers." Precisely. It does lighten, indeed it may virtually

eliminate, the risks of these parties. But it stops short of the farmer. For consider his fundamental risks. First, will he get a crop? Secondly, if he gets a crop, when should he sell it? In this vital second risk the hedging system does not help him. The futures market is a continuous market, but it does not tell him when to sell on that continuous market. The Pool relieved him of this perplexing problem. It ensured him the average price over the season for his crop according to its grade and location; and the Grain Trade propaganda from 1923 to 1928 never succeeded in showing that the non-pool member on the average did better than the Pool member. The Pool, of course, has been heavily hit, but only because it shared the bullish sentiment which was common to North America in 1929. The trade then went largely unhedged. When the price for Number Three Northern got wildly out of line in Liverpool with its equivalent, Argentine Rosafé, the Pool should have unloaded on the Exchange, and the Exchange would have howled. But the Pool did not, and it is paying now a heavy price. Nevertheless, the Pool in the shape now of three provincial pools selling separately is still very much alive. Whether the Pool could have done better is a matter of speculation. It is certain, however, that much of its energies were diverted from its objective by having to counter at every turn the ceaseless hostility of the trade—not of the bankers, but of the trade. The Canadian West still has morale and mind and hope. It owes these to the magnificent educational work of the Pool over the last ten years. This is the foundation which stands to-day between the Canadian farmer and a quagmire of demoralisation. The United States have sought to instal a similar foundation from above; and the main difference between the two is that in Canada the farmer out of his Pool assets is paying a substantial part of the price of bad times, while in the United States the Treasury is footing the whole of the bill.

A question that haunts the Commission is: From whom does the speculator's remuneration come? I would say that, in so far as it is constructive, it comes from the consumer, for service rendered. But the service rendered is very cheap, because this remuneration is largely augmented by the losses of the "moths and mugs" of the speculative market. These, says the Report, are "not really welcome at the Exchange" (p. 23). A somewhat ingenuous sentiment. They are highly welcome to those "legitimate" dealers who cater to their needs. They are as welcome as the general public are to the stock or mining brokers. Witness

the little tabernacles of worship in the buildings of the Grain Exchange or at the street corners, where they watch the ticker and the boy with the chalk. They and the farmers who, after selling their wheat, buy a future, lose money to those who are constructive speculators. They give something for nothing. It is not their money which is unwelcome, but the indignation they feel when they lose. A flutter is an alcoholic excitement; and the better mind of the farming population objects to it, because it distracts the farmer and adds uncertainty to an already uncertain life. Since the isolated farmer can only enter the market as a moth or a mug, the organised farmers have tried to enter it through the expert guidance of their own organisations. And when they entered it, they found that they could only get serious results by driving through it to direct contacts with the consumer.

Last year there appeared in England a lively little book, *The Bread of Britain*, by A. H. Hurst. This Report is its Canadian counterpart. Both are active protests against recent change, which seems to threaten supersession and loss of occupation. Both distrust integration and economic democracy. How often have we heard the phrase, " We believe that, as usual, the dissatisfied element are the more conscious and articulate " (Report, p. 61). But for agitators there would be no labour unions, no pools. The Grain Exchange, if only he would believe it, is the farmer's friend. The Grain Exchange with its futures reduces fluctuations. This may not command assent, but listen to it when it is decked in the robes of economic theory. " By the application of the economic principle of ' diminishing utility ' and ' marginal satisfaction ' the aggregate satisfaction is greater where the fluctuations are less by a very important difference " (p. 24). Now, Mr. Farmer, what can you say to that?

C. R. FAY

The Agricultural Marketing Act, 1931. Ministry of Agriculture. Economic Series No. 33. (H.M.S.O. 1931. Pp. 104. 6*d*.)

As the title implies, this publication is a commentary on the Agricultural Marketing Act, 1931, which received Royal Assent on July 31st last. The Report is consequently a departure from the commodity investigations we have been led to expect from the Ministry's Economic Series, but is none the less an important contribution to the " Orange Books," especially if it only partially succeeds in explaining the Act to those many critics whose appreciation of the measure has evidently been inadequate. The introduction argues that marketing reform must proceed in the

two directions of standardisation and organisation, and that sufficient progress along the former way has been made to necessitate an organisation policy. The Act has been prepared to achieve this object. Chapters II and III deal with the preparations and submission of marketing schemes and the subsequent procedure. Schemes may be prepared in respect of all primary products, whether of arable or grassland origin, and of secondary or processed edible products, with reference to Great Britain as a whole or any part of Great Britain. It is pointed out that while schemes can only be *submitted* by producers, the Act in no way defines the hand that shall prepare the schemes. The Minister of Agriculture is given power to modify any scheme within certain limits, and when finally ready it is submitted to Parliament after consultation with the Board of Trade. Having received Parliamentary approval, the scheme comes into partial force during a "suspensory" period during which the only provisions operating are those concerning the conduct of the poll, by which a two-thirds majority in terms of numbers and of output must be secured in respect of the producers of the product, and in the area concerned, before the scheme can be given full operation.

Administration of schemes, types of organisation, and powers of Boards are explained in Chapters IV, V and VI, where advantage is taken of the larger scope to illustrate the sections of the Act concerned by reference to particular commodities. The opportunities of Boards to disseminate market intelligence and to promote research and co-operation are indicated. Chapter VII points out that the degree of compulsion is by no means absolute, since, under certain circumstances, producers may receive exemption from the requirements of the scheme concerned, and, moreover, every scheme must provide for the granting of exemptions. Financial administration, the position of contracts already made, the means by which the consumer is safeguarded and reorganisation commissions conclude this explanatory commentary. The Act is given in an Appendix.

Enough has been said to indicate that the publication outlines the provisions of the Act in the logical order of practical procedure which is by no means coincidental with the Act taken section by section. It is in effect a translation of a difficult and complicated measure into terms of everyday language. But it is by no means (and does not pretend to be) a final authority on all possible points arising from the Act in practice, for ". . . there is no restriction on the rights of the individual to seek a ruling of the Courts on any question of interpretation that may arise" (p. 17).

The author has steered a very even course between economic prophecy on the one hand and legal technicalities on the other. The result is an excellent vade-mecum for all who contemplate taking advantage of the measure. An adequate index is a very welcome innovation in the Economic Series.

R. F. George

Memoranda of the Birmingham Bureau of Research on Russian Economic Conditions. Nos. 1 and 2. (University of Birmingham: Annual Series. 8*s*. 6*d*.)

This important project, of maintaining interest in the Russian economic experiment, will be carried out in a series of Memoranda, of which from four to six will be issued annually. All the members of the Bureau have direct acquaintance with Russian life. The first Memorandum deals with the Five-Year Plan, and Compulsory Labour in the U.S.S.R.; the second with the foreign trade of the U.S.S.R.

The Course and Phases of the World Economic Depression. League of Nations. (London: Allen and Unwin). Revised Edition. Pp. 339. 6*s*.)

The following summary is issued with this volume, of which we hope to give a review in a later number.

The last Assembly of the League of Nations was already seriously preoccupied with the economic depression. Since then it has, of course, become even more widespread and acute.

The present volume gives a full description of the origin and the various forms of the depression.

It is entitled *The Course and Phases of the World Economic Depression*, and has been prepared at the request of the Eleventh Assembly by Professor Ohlin of Stockholm University, with the assistance of the staff of the Economic and Financial Organisation of the League.

In the course of preparation economic councils and economic research institutions in Austria, Belgium, Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Italy, Netherlands, Poland, Portugal, Spain, the United Kingdom and the United States were consulted. These institutions sent representatives to two meetings held at Geneva and also submitted memoranda. Special information was also received from nine Governments.

This report, after a brief review of some aspects of the post-war economic developments and of structural changes in the

years immediately preceding the depression, and after some review of business cycle tendencies, generally, in the last decade, gives a full description of the present depression. It describes its various phases and analyses how various factors in economic life come into play, *i.e.*, production, domestic trade and consumption; prices, wages and profits; foreign trade and shipping, speculation, credit and savings; and international capital movements. In the concluding chapters these are further analysed, *e.g.*, the combination of structural maladjustments and the business cycle recession; monetary factors and the decline of the price level; the inflexibility of the economic system in its relation to the depression; the mutual reactions of recession tendencies in different countries (including Russia); the morphology of production. Finally, the present depression is compared with earlier depressions, and the volume concludes with a summary of the situation in the summer and autumn of 1931.

The revised edition brings the description and analysis of the depression up to the end of September. Accordingly, it contains an account of the outstanding financial events of that month, and briefly analyses the causes of the financial crisis. In addition, several minor changes are made throughout the body of the report in an attempt to present more accurate and up-to-date information.

Centres of Reference for International Affairs. Compiled by the League of Nations International Institute of Intellectual Co-operation. Also in German and French editions. 1931. (Paris: I.I.I.C. 8vo. 163 pp. 2*s*. 6*d*.)

THE preparation of this handbook was undertaken at the request of the Conference of Institutions for the Scientific Study of International Relations, and it has been published with the assistance of the European Centre of the Carnegie Endowment for International Peace. Its purpose is both to stimulate collaboration between organisations in different countries which are pursuing similar studies, and to bring to the knowledge of the student of international affairs the reference centres in his own and other countries where he may obtain access to sources of information.

The particulars given are necessarily confined to centres which have already undertaken to assist in the work of co-operation, but the field covered is so wide that it would be surprising if the Handbook failed to provide an indication of where information on any aspect of international affairs might be found. Not only

is reference made to national institutions in Austria, Czecho-slovakia, Denmark, France, Germany, Great Britain, Italy, Japan, the Netherlands, New Zealand, Poland, Roumania and the United States, but there is a full list of international institutions, such as the International Chamber of Commerce, International Parliamentary Union, International Law Association, in addition, of course, to the League of Nations, the International Labour Office, etc.

In each instance details are given of the address, objects, organisation and special activities of the institutions dealt with.

Not the least interesting aspect of the Handbook is its evidence of the extent to which special bodies to deal with international affairs are being created all over the world.

OBITUARY

Lujo Brentano (1844–1931)

Professor Lujo Brentano, who was born on December 18th, 1844, and died in his eighty-seventh year on September 9th, 1931, held quite a unique position amongst German economists. He came of an old Catholic family of Italian origin, many members of which were closely connected with Church affairs and German literature. He inherited from them a good deal of romantic conservatism. Living in a country where the State had been accustomed to meddle with men's consciences, he transformed it into a kind of liberalism on an almost English pattern. Early in life, almost as a boy, he had been sent to University College, Dublin, where, under the influence of his brother-in-law, P. Le Page Renouf, he became a liberal, as he himself expressly states in his memoirs, "on account of my Catholicism." A few years later he got into intimate relations with P. M. Ludlow, F. D. Maurice and Frederic Harrison. He ultimately became the most thoroughgoing prominent liberal Germany has produced in modern days. He succeeded in uniting the organic conceptions of the Catholic romanticist with a penetrating rationalism of secular and Protestant origin. He was trained by Helferich and indirectly by Hermann, the most prominent academic exponents in Germany of the post-classical age. Ernst Engel, the head of the Prussian Statistical Office, made him early acquainted with social problems, by taking the young man to England, where he

began to study, and one might almost say discovered for scientific purposes, the English Trade Union movement.

He thus became what might be called a citizen of two countries. English life and English problems fascinated him all his life. He was delighted, as he pointed out in his brilliant recollections *Mein Leben im Kampf um die soziale Entwicklung Deutschlands* [1] (he finished the reading of the proof-sheets a few days before his death), that British Trade Unionism, according to G. D. H. Cole, considered the Webbs its parents and himself its grandparent. His first important book, *On the History and Development of Gilds and the Original Trades-Unions*, was printed in English. And his last and most voluminous work, which he finished when he was eighty-five years of age, was *Eine Geschichte der wirtschaftlichen Entwicklung Englands* (4 volumes).

Though he was brought up in the classical doctrine, he resolutely turned his back on the shadowy dogmatism of the late German "*laisser faire, laisser aller*" school. He became for a time one of the leaders of the younger historical school and the close associate of Schmoller and Knapp. He was the leading spirit amongst the founders of the "Verein für Sozialpolitik" (which first met on October 6th, 1872, in Eisenach), the great German association of practical and theoretical economists which for nearly forty years wielded an enormous influence on German development. But unlike his friend Schmoller, he was a thoroughly trained theorist who never lost interest in purely theoretical questions, as was shown fairly late in his life by his essays on population (*Die Malthussche Lehre und die Bevölkerungsbewegung der letzten Dezennien*) and on human wants (*Versuch einer Theorie der Bedürfnisse*).

The same theoretical interest dominated his Agrarpolitik (agrarian policy). He tried to construct a system of economic policy applied to land, and was not content, as were the writers of most of the regular text-books, with descriptions of land systems and agricultural administration. In his studies on Trade Unionism he was not satisfied with descriptive and historical narration: he created a kind of Trade-Union theory, based on the conception that labour, as a commodity, had to be handled in an organised way; as it was inseparable from the human personality, it could not be withdrawn from the market whenever there was a glut.[2] He became one of the earliest

[1] Verlag Eugen Diederichs, Jena, 1931.

[2] *Die Arbeitergilden der Gegenwart*, 2 vols., 1871–2, *Die Arbeiterversicherung gemäss der heutigen Wirtschaftsordnung*, 1879.

exponents of the belief in the necessity of high wages, as a means of economic progress.[1] On the other hand, he was one of the early discoverers of the cartel, which, according to him, became unavoidable whenever industry had to invest capital on a large scale in huge plants from which it could not be withdrawn whenever there was a depression.[2] Being an ardent free-trader, his essays on the German corn laws (*Die deutschen Getreidezölle*) and on the relative cost of production (*Das Freihandels-Argument*) were the storehouse from which most arguments in the German anti-protection campaign were drawn. He could afford to advocate cartels in the same way in which he advocated Trade Unions, as associations entered into voluntarily by producers of labour or producers of goods which organised but did not paralyse the competitive play of free forces on the market. In fact, just as his personality was full of mutually antagonistic, but at the same time harmoniously blended features, so was his economic outlook. A follower of the classical school turned historian (*Die Arbeitergilden der Gegenwart*), he furiously and successfully attacked later on the sterile relativism of Schmoller's Historical School. A free-trader, he created a working theory of organised labour and monopolised capital. One of the earliest opponents of Karl Marx, and hated as such by orthodox socialists, he became not only the advocate, but the friend and, in his old age, a kind of patron saint of German Trade Unionism, loathed and attacked as such by manufacturers' organisations, who rightly considered him the most powerful amongst the "Katheder-Sozialisten." A liberal—nay, a liberal of the liberals—he finally became the inspirer of the Fascist social system, the real inventor of the theory of the corporative state. For when this physical force movement had succeeded in wresting power from what it considered the weak liberal state, it was so devoid of positive social conceptions that it had to borrow them from the liberal thinkers it so greatly despised.

Brentano's chief importance lay less in his theoretical work, though he was indefatigable at it, and his influence as a University teacher was unrivalled in Germany: it lay rather in the fact that he applied in a systematic way economic theory to economic policy. His main fame in the history of economic science will rest on that combination, and he will live as a great constructive *political* economist, *political* being greatly underlined. But even

[1] *Ueber das Verhältnis von Arbeitslohn und Arbeitszeit zur Arbeitsleistung*, 1876.

[2] *Ueber Kartelle*, 1888.

greater than the influence of his books was the impression of his personality on friends and pupils nearly all over the world.[1]

M. J. BONN

Berlin.

CURRENT TOPICS

THE Study Group of the Royal Statistical Society welcomes to its meetings all who are interested in its work. It meets every second Tuesday of the month to discuss informally questions of an economic and statistical character, at the premises of the Society. In December, however, it will meet on the first of the month, in conjunction with the Institute of Actuaries' Students' Society, when the recent population Census will be considered. Communications should be addressed to the Hon. Secretary, Study Group of the R.S.S., 9 Adelphi Terrace, W.C.

We are asked to draw the attention of our readers to the establishment of the Instituto Brasileiro de Estudos Economicos, whose address is Escola de Commercio Alvares Penteado, São Paulo, Brazil. Its purpose is to further an interchange of Anglo-Brazilian culture, especially with reference to economic and scientific aspects of the national life. Those who desire to see its publications should write to the Secretary, Dr. Cardim.

In the review of Professor J. H. Richardson's *Economic Disarmament* in the last number of this Journal, there is an obvious but serious misprint. In the last paragraph on page 465 the text should read: "It should therefore be stated . . . that it is hard to imagine a book dealing with such a subject which, in the space employed, gives a more thorough and clear exposition of the fundamentals of the questions considered."

[1] A bibliographical essay on Brentano, *Lujo Brentano*, was published by Hans Neisser and Melchior Palyi in 1924.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

Part IV. 1931. *Labour and Output in the Coal-mining Industry of Great Britain.* E. C. RHODES. *Major and Minor Trade Fluctuations.* O. M. W. SPRAGUE. *Potato Prices in England and Wales.* R. F. GEORGE. *Statistical Evidences of Regressive Tendencies in Distributive Costs.* H. SECRIST.

Economica.

AUGUST, 1931. *L. T. Hobhouse.* S. ALEXANDER. *Reflections on the Pure Theory of Money of Mr. J. M. Keynes.* F. A. VON HAYEK.

The English Historical Review.

OCTOBER, 1931. *The Treasury,* 1660–1714. D. M. GILL.

Indian Journal of Economics.

JULY, 1931. *Analysis of the Statistics of Trade Unionism and Trade Disputes.* K. B. MADHAVA and V. N. POORNAPREGNA. *Theory of Increasing Returns under Competitive Conditions.* S. C. BOSE. *The Remonetisation of Silver.* B. R. RAU. *Indo-Chinese Commerce since* 1875. S. C. BOSE.

Quarterly Journal of Economics.

AUGUST, 1931. *The Monetary Doctrines of J. M. Keynes.* J. H. WILLIAMS. *Rayon and the Tariff.* F. W. TAUSSIG and H. D. WHITE. *Some Economic Implications of Unemployment Insurance.* D. YODER. *Saint-Simonism and the Rationalisation of Industry.* E. S. MASON. *Institutional Fictions and Technological Unemployment.* A. H. HANSEN.

Journal of Political Economy.

AUGUST, 1931. *The Fall in the Value of Silver and its Consequences.* F. D. GRAHAM. *Agrarian Discontent in the Mississippi Valley preceding the War of* 1812. G. R. TAYLOR. *The Stevenson Plan.* C. R. WHITTLESEY. *Organised Labour and the Family Allowance System in France.* M. R. CLARK.

Journal of Economic and Business History (Harvard).

AUGUST, 1931. *The Agrarian Question in Russia.* C. ZAITSEFF. *Selkirk Purchase of the Red River Valley.* J. P. PRITCHETT. *Land Policy of the Illinois Central Railroad.* P. W. GATES. *Cologne.* M. L. HARTSOUGH. *New York and its Rivals,* 1815–1860. R. G. ALBION. *The American Potash Industry.* T. J. KREPS.

Harvard Review of Economic Statistics.

MAY, 1931. *Postal Revenues and the Business Cycle.* C. J. BULLOCK, B. FOX, and A. R. ECKLER. *Money Rates: Revision of the Money Curve of the Monthly Index Chart.* J. B. HUBBARD. *The Building Industry since the War.* W. F. MAXWELL. *Outside Bank Debits corrected for Seasonal Variation,* 1919–1931. E. FRICKEY.

AUGUST. *Currency in Circulation as an Index of Business Volumes.* J. B. HUBBARD. *Prices of Wheat and Commodity Price Indexes for England,* 1259–1930. A. P. USHER. *Some International Trade Factors for Great Britain,* 1880–1913. A. G. SILVERMAN.

American Economic Review.

SEPTEMBER, 1931. *American Plans for State Unemployment Insurance.* C. GOODRICH. *Seasonal Unemployment Insurance.* R. J. MYERS. *Agricultural Theory of Business Cycles.* M. D. ANDERSON. *Significance of Economic Law.* G. R. DAVIES. *Nehemiah Grew: A Forgotten Mercantilist.* E. JOHNSON. *International Control of Raw Sugar.* C. L. JAMES.

Wheat Studies (Stanford, California).

JUNE, 1931. *The Wheat Situation in Scandinavia.*

JULY. *Financial Results of Speculative Holding of Wheat.* An elaborate and interesting study, based on American statistics. The principal points which emerge are, first, that the losses of speculators in wheat appear to have considerably exceeded their gains over almost every consecutive period of five years, and, secondly, that only a comparatively small percentage of the total quantity of wheat in the U.S. is hedged on the speculative markets in normal circumstances.

AUGUST. *The International Wheat Conferences during* 1930–31. The wheat-surplus-producing countries have held numerous conferences to promote collective action for the purpose of raising wheat prices. Sixteen of such conferences are here reviewed.

SEPTEMBER. *Survey of the Wheat Situation, April to July,* 1931. Export and international prices declined in the face of crop developments that now suggest a world wheat crop of 1931 substantially smaller than that of 1930, of an active European demand for wheat in most of the period, and of the maintenance of a larger ex-European demand.

Metron.

AUGUST, 1931. *On the Circular Test of Index Numbers.* C. GINI.

Kyoto University Economic Review.

JULY, 1931. *The Rationalisation of the Protective Tariff.* M. KAMBE. *The Economic Development of Japan.* E. HONJO. *The Japanese Taxation System in South Manchuria.* S. SHIOMI. *A Study of the Nature of the Social Mass.* T. NINAGAWA. *The Subjective Theory of Value, and Theories of the Value of Money.* K. SHIBATA.

Index (Stockholm).

AUGUST, 1931. *The World's Staples. VI. Natural Silk.* E. G. GUIMONT.

SEPTEMBER, 1931. *The World's Staples. VII. Rayon.* G. MORTARA
OCTOBER. *The World's Staples. VIII. Copper.* F. E. RICHTER.

Skandinaviska Kreditaktiebolaget.

JULY, 1931. *Disturbances in the World Economy owing to Relative Changes in Prices.* G. CASSEL. *Sweden's Foreign Bond Debt.* K. G. SIMONSSON.

International Labour Review.

AUGUST and SEPTEMBER, 1931. *Winter Building as a Remedy for Seasonal Unemployment.* E. BERNHARD. *Building Difficulties and Housing Policy in Post-War Europe.* R. GUYE. *Recent Developments in Vocational Guidance in the United States.* M. F. HAUSMANN.

Bulletin de L'Institut des Sciences Économiques.

AUGUST, 1931. *Une comparaison de la conjuncture économique générale de le Belgique de* 1897 *à* 1913, *avec celle de la Grande-Bretagne, des Etats-Unis, de l'Allemagne, de la France, et des Pays Bas.* L. H. DUPRIEZ. *Un indice de la production industrielle belge de* 1897 *à* 1930.

Revue d'Économie Politique.

MAY and JUNE, 1931. *La France Économique : Annuaire pour* 1930. By numerous writers, with a Preface by C. RIST.
JULY and AUGUST, 1931. *Le salaire, l'évolution sociale, et la monnaie.* F. SIMIAND. *Les lois de la demande.* R. ROY. *Prix de gros et prix de détail.* J. MARCHAL.

Schmollers Jahrbuch.

AUGUST, 1931. *Das Rätsel der langen Wellen.* W. WOYTINSKY. *Zum Problem der Lohnsenkung.* G. HALM. *Rationalisierungs-Krisen.* W. SIMON. *Sombarts Begriffsbestimmung des Sozialismus.* H. RIEKES. *Italien von heute.* F. VÖCHTING. *Die Ursachen des neueren Geburtenruckganges.* F. BURGDÖRFER. *Grenzen der Folgerungen aus der Geburtenstatistik.* E. WÜRZBURGER.

Zeitschrift für Nationalökonomie.

SEPTEMBER, 1931. *The Credit Problem in Political Economy.* R. REISCH. A study of "real" and "fiduciary" credit, with special relation to the problems created by the duration of credit, and some aspects of public loans. *Cost Curves and Supply Curves.* J. VINER. An important review of theory, developing the main concepts of Marshall, with reference to the problem of equilibrium.

Archiv für Sozialwissenschaft und Sozialpolitik.

AUGUST, 1931. *Felix Somary's Bankpolitik.* K. SCHLESINGER. *Klassification der Nachfragekurven auf Grund des Elastizitätsbegriffes.* U. RICCI. *Kapitalbildung und Arbeitslosigkeit.* M. MITNITZKY.

Jahrbücher für Nationalökonomie und Statistik.

AUGUST, 1931. *Zum Einfluss der klassischen italienischen Nationalökonomie auf die Dogmengeschichte.* R. MICHELS. *Ueber Gegenstand und Methode der "Dynamik."* E. CARELL.

SEPTEMBER, 1931. *Die Steigerung der Erwerbsziffer in Deutschland. Eine Untersuchung zur Frage der Beziehungen zwischen Bevölkerungsentwicklung und Arbeitsmarkt.* J. H. PLATZER.

OCTOBER, 1931. *Die Anschauungen des* 17 *und* 18 *Jahrhunderts über die Abnahme der Bevölkerung.* P. MOMBERT. *Zur Methode und Problemstellung der Zinstheorie.* V. BLOCK.

Weltwirtschaftliches Archiv.

OCTOBER, 1931. *Die Arbeitslosigkeit und das Gesetz der zeitlichen Einkommenfolge.* O. VON ZWIEDINECK-SÜDENHORST. The theory of the impossibility of general overproduction becomes untenable when account is taken of the fact that in order of time products are not purchased with the wages spent on their creation. This time-law of incomes compels a revision of a number of theoretical dogmas. *Rationalisierung und Arbeitslosigkeit.* H. MOELLER. The purchasing power saved by the producer when workmen are dismissed can re-enter the productive process at different points, with different effects on the demand for labour. The investigations on this subject of Ricardo and later English economists are too pessimistic. *Praktische Konjunkturpolitik : die Arbeit der Braunskommission.* W. RÖPKE. The author is a member of the Commission set up this year for the study of unemployment and its remedies. The proposals of the Commission aim at the shortening of hours of work, limitation of double shifts, long-term borrowing for a public programme of investment, and the reform of unemployment insurance. *Löhne, Arbeitslosigkeit und Zölle : ein Transferproblem.* T. BALOGH. The persistent unemployment caused by disequilibrium between wages, efficiency, and prices vitiates the classical arguments against Protection. It can be shown that such a disequilibrium cannot be righted by monetary measures only. Without devaluation or reduction of wages, the arguments for a tariff are not so fallacious as is supposed. *Die Preisbewegung der Jahre* 1901–1912 *und* 1925–1926. W. WOYTINSKY. A statistical comparison, emphasising the special factors of the later period. *Die Schemata des Stationären Kreislaufs bei Böhm-Bawerk und Marx.* F. BURCHARDT. Holds that Böhm-Bawerk overlooked the conditions of the stationary state in his analysis of capital. *Das Problem der Strukturänderung in einigen südamerikanischen Staaten, insbesondere Argentinien und Brasilien.* R. MICHELS. *Zur Problematik internationaler Reallohnvergleiche.* W. BRITZELMAYER. The problem remains unsolved, so long as the comparison is based on the kinds of consumption that are measured. An objective standard can be obtained from the theory of calories. Comparison should be between households which show the same percentage for nutriment.

Zeitschrift für die gesamte Staatswissenschaft.

SEPTEMBER, 1931. *Bankpolitik der Gegenwart.* A. VON SPITZMÜLLER. *Kapital und Arbeit.* T. BRAUER.

Vierteljahrshefte zur Konjunkturforschung.

SONDERHEFT 24. *Die Welttextilkrise.* H. GRÜNBAUM.

Economia (Rome).

MARCH, 1931. *La depressione economica mondiale.* A symposium, containing the replies to a *questionnaire* of AFTALION, ALBERTI, ANDREADES, ANSIAUX, DE LEENER, GIDE, JANNACONNE, TAUSSIG, and VERRIJN STUART.

Giornale degli Economisti.

JULY, 1931. *Difesa dell' "homo-œconomicus." L' "homo œconomicus" nello Stato corporativo.* A. CONTENTO. "Subject to the requirements of the State, of society, and of his civil conscience, every man living tends to behave as an 'economic man,' *i.e.* to adjust the convenience of means to the end, not only in the strictly economic field but in every side of his life, and . . . if this were not the case, if every one did not act in accordance with the principle of rational economic behaviour (*economicità*), he would in the end damage not merely himself but also the whole community." *Carlo Cassola.* G. U. PAPI. *Il Conte Ignazio Donaudi delle Mallere economista torinese del secolo XVIII.* M. A. PROLO.

AUGUST, 1931. *Attività bancaria e attività finanziaria.* R. FUBINI. It is contended that there are important similarities as well as differences, both in theory and practice, between the effects of banking operations and the effects of the raising and spending of public revenue. *Alcuni aspetti dell' assicurazione dei crediti.* G. ANGRISANI. A brief account of certain economic aspects of credit insurance. *Il problema delle riparazioni germaniche e le idee economiche di Hjalmar Schacht.* A review article dealing with Schacht's recent volume, *Das Ende der Reparazionen.*

SEPTEMBER, 1931. *La funzione dei prezzi e l'economia "regolata."* J. G. KRETSCHMANN. A study of the theoretical and practical considerations involved in attempts to regulate prices, dealing, *inter alia*, with the operations of cartels and trusts, the artificial control of raw material, and the "planned economy" obtaining in Russia to-day. *Il Consiglio nationale delle corporazioni nell' economia corporativa.* G. BASSANI. *Per una più ampia visione della "economia finanziaria."* G. CARANO-DONVITO.

La Riforma Sociale.

SEPTEMBER–OCTOBER, 1931. *Su l'incidenza dell' interesse del capitale.* R. BENINI. *Contro osservazioni in margine.* L. EINAUDI. The above two articles comprise a short controversy between Professors Benini and Einaudi over the thesis maintained by the former, that the inclusion of interest in the prices of commodities changes, *per se*, the distribution of the total social product. *Le modificazioni al sistema tributario dei comuni e delle provincie nelle proposte della commissione parlamentare e nel T. U. per la finanza locale.* F. A. REPÀCI. *Indagini in tema d'interesse.* M. LECCE.

NEW BOOKS

British.

BAKER (A.). Money and prices, a short explanation of the monetary system, and some proposals to restore and maintain prosperity by the regulation of prices and the right use of credit. J. M. Dent. 7¼″. Pp. 216. 6*s*.

BELSHAW (H.). The provision of credit with special reference to agriculture, with two chapters upon the provision of rural credit in England, by R. R. ENFIELD. Cambridge. W. Heffer. 8½″. Pp. 326. 10*s*. 6*d*.

BEVERIDGE (SIR W.) and others. Tariffs: the case examined, by a committee of experts under the chairmanship of Sir W. Beveridge. Longmans, Green. 7½″. Pp. 301. 7*s*. 6*d*.

BEVERIDGE (SIR W.). Causes and cures of unemployment. Longmans, Green. 7½″. Pp. 70. 2*s*. 6*d*.

CANADIAN POLITICAL SCIENCE ASSOCIATION. Papers and proceedings of the annual meeting. Vol. III. Ottawa. 9¾″. Pp. 267.

CANNAN (E.). Modern currency and the regulation of its value. P. S. King & Son. 7¼″. Pp. 112. 5*s*.

CANTILLON (R.). Essai sur la nature du commerce en général. Edited with an English translation and other material by H. HIGGS. Macmillan & Co. (For the Royal Economic Society.) 9¼″. Pp. 394. 15*s*.

CHABLANI (H. L.). Studies in Indian currency and exchange. Oxford University Press. 8½″. Pp. 263. 9*s*.

CLARE (G.). A money market primer and key to the exchanges. 3rd ed., revised by M. H. MEGRAH. Effingham Wilson. 8½″. Pp. 287.

COLES (K. A.). Income tax and the business man (including surtax). A concise guide to assessment and relief. Crosby Lockwood & Son. 7¼″. Pp. 84. 2*s*. 6*d*.

CRAM (G. A.). The key to prosperity: abundance: leisure: contentment. Pitman. 8¼″. Pp. 63. 2*s*. 6*d*.

FEAVEARYEAR (A. E.). The pound sterling, a history of English money. Oxford: the Clarendon Press. 8¾″. Pp. 367. 15*s*.

FURNIVALL (J. S.). An introduction to the political economy of Burma. Burma Book Club. 7¼″. Pp. 255.

HAWTREY (R. G.). Trade depression and the way out. Longmans, Green. 8½″. Pp. 84. 2*s*. 6*d*.

HAYEK (F. A.). Prices and production. Routledge. 7¼″. Pp. 112. 6*s*.

HOBSON (J. A.). Poverty in plenty: the ethics of income. Allen & Unwin. 7¼″. Pp. 92. 2*s*. 6*d*.

HOLLAND (G. A.). Co-operative intertrading. Manchester: Co-operative Union. 8½″. Pp. 32. 4*d*.

GADGIL (D. R.). The salaries of public officials in India. Gokhale Inst. of Politics and Economics. 9¾″. Pp. 50. *Re*. 1.

KINGSTON (A. G.). Kingston's Continental price conversion tables giving price equivalents at stabilised exchanges for imperial and

metric weights and measures and vice versa. Kingston's Translations Institute. 7¼″. Pp. 79. 4*s*.

LONDON SCHOOL OF ECONOMICS. A London bibliography of the social sciences. Vol. III, P.–Z. London School of Economics. 10″. Pp. xi + 1232.

MANOÏLESCO (M.). The theory of protection and international trade. P. S. King. 8½″. Pp. xxxi + 262. 12*s*. 6*d*.

McGREGOR (A. G.). World depression to world prosperity. P. S. King. 7¼″. Pp. 118. 5*s*.

MIDLAND AGRICULTURAL COLLEGE, Sutton, Bonington, Loughborough. Some aspects of meat distribution and consumption. A study based on conditions in Loughborough, 1930. By A. JONES and S. M. MAKINS. Loughborough, Dept. of Agricultural Economics. 9¼″. Pp. 93. 2*s*.

NAPIER (E. S.). The German credit problem: a plea for simple and effective control. London General Press. 8½″. Pp. 43. 2*s*. 6*d*.

NORMANO (J. F.). The struggle for South America: economy and ideology. Allen & Unwin. 8½″. Pp. 294. 12*s*. 6*d*.

PIGOU (A. C.), and ROBERTSON (D. H.). Economic essays and addresses. P. S. King. 8½″. Pp. 215. 10*s*. 6*d*.

PRICE (L. L.). A short history of political economy in England from Adam Smith to Alfred Marshall. 14th ed. Methuen & Co. 7½″. Pp. 315. 6*s*.

REDFORD (A.). The economic history of England (1760–1860). Longmans, Green. 7¼″. Pp. 221. 3*s*. 6*d*.

ROWSE (A. L.). Politics and the younger generation. Faber & Faber. 8″. Pp. 303. 10*s*. 6*d*.

SCOTT (H. M.). The approach to economics. Christophers. 7½″. Pp. 211. 4*s*. 6*d*.

Southampton, a civic survey: being a report of the Civic Survey Committee of the Southampton Civic Society. Oxford University Press. 13¼″. Pp. 98. 30*s*.

STAMP (SIR J. C.). Papers on gold and the price level. P. S. King. 8½″. Pp. 127. 7*s*. 6*d*.

THOMPSON COMPANY (J. WALTER). A market analysis of the population statistics for Great Britain and Ireland. P. S. King. 8½″. Pp. 45. 2*s*. 6*d*.

What would be the character of a new war? Inquiry organised by the Inter-Parliamentary Union. P. S. King. 8½″. Pp. 411. 16*s*.

WOOLF (L.). After the deluge, a study of communal psychology. Vol. I. Hogarth Press. 8½″. Pp. 347. 15*s*.

American.

BLOCH (L.). Labor agreements in coal mines: a case study of the administration of agreements between miners' and operators' organisations in the bituminous coal mines of Illinois. New York, Russell Sage Foundation. 7¾″. Pp. 513. $2.

CLARK (H. F.). Economic theory and correct occupational distribution. New York, Teachers' College, Columbia University. 8″. Pp. 176.

FETTER (F. A.). The masquerade of monopoly. New York, Harcourt, Brace & Co. 8½″. Pp. 470.

FLORINSKY (M. T.). The end of the Russian Empire. (Economic and Social History of the World War, Russian Series.) New Haven, Yale University Press (London, Humphrey Milford). 9¼″. Pp. xvi + 272. $3.00.

HANEY (L. H.). Business forecasting. The principles and practice of forecasting business and stock-market trends with especial reference to business cycles. New York & London, Ginn & Co. 8¼″. Pp. 378. 15s.

HILL (N. L.). International administration. New York and London, McGraw-Hill. 9″. Pp. 292.

KUCZYNSKI (R. R.). The balance of births and deaths. Vol. II. Eastern and Southern Europe. Washington, The Brookings Institution. 8″. Pp. 170. $2.

MITCHELL (G. S.). Textile Unionism and the South. Chapel Hill, Univ. of North Carolina Press (London, Humphrey Milford). 8½″. Pp. 92. 4s. 6d.

MONROE (A. E.). Value and income. Cambridge, Mass., Harvard University Press (London, Humphrey Milford). 8¾″. Pp. 286. 15s.

PIPKIN (C. W.). Social politics and modern democracies. New York, Macmillan. 8½″. 2 vols. $7.50.

RAY (P. O.). Major European governments. New York and London, Ginn & Co. 8″. Pp. 446. 17s. 6d.

VAN SICKLE (J. V.). Direct taxation in Austria. Harvard University Press (London, Humphrey Milford. 8½″. Pp. 232. 13s. 6d.

French.

CLÉMENTEL (E.). La France et la politique économique interalliée. (Histoire Économique et Sociale de la Guerre Mondiale, Série française). Paris, Les Presses Universitaires de France. 10″. Pp. 376. 44 *fr.*

HERMANT (M.). Les paradoxes économique de l'Allemagne moderne 1918–1931. Paris, Armand Colin. 9″. Pp. 202. 20 *fr.*

Austrian.

KLEIN (G.). System eines idealistischen Sozialismus. Theoretische Grundlegung einer planwirtschaftlichen Volks- und Weltwirtschaftsordnung. Wien, Leipzig. Wilhelm Braumüller. 9¼″. Pp. 294. 11 *m.*

MACHLUP (F.). Börsenkredit, Industriekredit und Kapitalbildung. Wien, Julius Springer. 8½″. Pp. 220.

German.

BUDGE (S.). Lehre vom Geld. I. Band: Theorie des Geldes. I. Halbband: Wesen und Wert des Geldes. Jena, Gustav Fischer. 9″. Pp. 308.

EICHBORN (K. VON). Gold oder Geld? Praktische Darstellung einer abstracten Geldwährung. München und Leipzig, Duncker & Humblot. 9″. Pp. 18. 1.50 *m.*

FRIED (F.). Das ende des Kapitalismus. Jena, Eugen Diederichs Verlag. 8¾″. Pp. 266.

HAHN (A.). Kredit und Krise. Tübingen, J. C. B. Mohr. 9¼″. Pp. 24. 1 *m.*

HECHT (L.). A Cournot und L. Walras, ein formaler und materialer Vergleich wirtschaftstheoretischer Ableitungen. Heidelberg, Verlag der Weiss'schen Universitätsbuchhandlung. 9½″. Pp. 93. 4 *m.*

KUNWALD (G.). Ehrliches und unehrliches Silbergeld. Jena, Gustav Fischer. 9½″. Pp. 58.

MISES (L.), and SPIETHOFF (A.), editors. Probleme der Wertlehre. Erster Teil. München und Leipzig, Duncker & Humblot. 9¾″. Pp. 295. 13 *m.*

NAGY (T.). Die ungarische Nationalbank. München and Leipzig, Duncker & Humblot. 9¼″. Pp. 174. 7.50 *m.* (Gebunden 10 *m.*)

RÖPKE (W.). Weltwirtschaft und Aussenhandelspolitik. Berlin, Spaeth & Linde. 10¾″. Pp. 105. 4 *m.*

SCHWARZENBERGER (G.). Die Krieger-Anleihen. Ein Beitrag zur Auslegung der internationalen Anleihe- und Monopolverträge sowie zur Lehre vom Staatsbankerott. München und Leipzig, Duncker & Humblot. 9½″. Pp. 69. 3.60 *m.*

VOGEL (E. H.). Grundzüge einer sozialorganischen Privatwirtschaftsverfassung. Berlin, Paul Parey. 9½″. Pp. 129.

Italian.

DALLA VOLTA (R). Scritti vari di economia e finanza. Firenze: Seeberi. 40*l.*

GINI (C). Le basi scientifiche della politica della populazione. Catania: Studio Moderno: 30*l.*

DE STEFANI (A). Manuale di finanza. Bologna: Zanichelli: 30*l.*

Official.

LEAGUE OF NATIONS.

The cause and phases of the World Economic Depression. Revised edition. Pp. 339. 6*s.* Statistical Year-book, 1930–31. Price 7*s.* 6*d.*

INTERNATIONAL LABOUR OFFICE.

Housing policy in Europe. Cheap home building. Geneva (London, P. S. King). 9½″. Pp. 378. 5*s.*

INDIA.

The Congress Select Committee. Report on the financial obligations between Great Britain and India. Vol. I. Pp. 70. *Re.* 1.

Vol. II. Annexture to the Report, by Prof. K. T. SHAH. Bombay. 9½″. Pp. 111. *Re.* 1.

Economic investigations in the Hyderabad State. Vol. I (General Survey), by S. K. IYENGAR. Hyderabad, Deccan. Government Central Press. 9¾″. Pp. 178. 7*s.* 6*d.*

EGYPT.

Cotton Bureau. Technical Bulletin No. 2. A new series of index-numbers of wholesale prices in Egypt 1899–1929, by M. EL-DARWISH. Cairo. Government Press. 10½″. Pp. 11.

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